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Reduce Security Costs At Your SME

How To Boost Security Without Overextending Your Budget

by Elizabeth Millard

• • •

"INCREASE SECURITY" is a familiar drumbeat of advice from consultants, vendors, and IT gurus, but for many SMEs, that mandate tends to be at odds with another directive: Keep costs in line.

But the two don't have to be mutually exclusive, some experts believe, and there are some ways to implement more efficient security strategies without an undue toll on a department's spending. Here are some top tips for achieving the tricky balance:

Become Big Brother During Hiring

OK, maybe an IT manager doesn't have to actually monitor the phone calls and emails of potential employees, but doing a deeper background check than in the past can help to prevent future problems, and costs are usually minimal.

Insider threats can never be completely eradicated, notes George Tehrani, director of strategic relationships at Apani Networks (www.apani.com), but they can be minimized. Creating cohesive cooperation between IT and HR can be invaluable because HR will be able to know what to ask during reference checks—for example, questions to a former employer could include whether that firm has an Internet use policy, whether the candidate honored that policy, and if there were any issues concerning device use, IT support issues, or inappropriate forwarding of company materials.

"When reducing insider problems, you need to implement a little bit of everything," says Tehrani, and that includes

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Automate Role Management & Identity Compliance

Manual Processes May Not Be Adequate To Manage User Access Rights

by Drew Robb

• • •

ABBOT AND COSTELLO'S "Who's on First?" is one of the most famous comedy routines of all time. But they might elicit just as many laughs today if they asked who's accessing critical enterprise systems and data resources systems. According to the Ponemon Institute, 58% of IT managers admit to reliance on manual processes to audit and control user access. The question is, why?

"There's a fear that investments in new technology and training will be prohibitively expensive and that using new technologies will introduce complexities that will result in lower productivity and a decrease in worker satisfaction," says Dr. Larry Ponemon, chairman and founder of the Ponemon Institute. "Ironically, the occurrence of a data loss event is often followed by the very recommended investments companies put off. These include encryption, data loss detection and prevention, and identity management."

Relying strictly on manual processes leaves sensitive data vulnerable to theft, sloppy management, not being accounted for, and noncompliance. Companies may try

Go to Page 10

Relying strictly on manual processes leaves data vulnerable to theft, sloppy management, not being accounted for, and noncompliance.

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COVER FOCUS

Answers To Top IT Questions

We talked with several industry experts to come up with answers to your most frequent questions regarding security, network uptime, storage, and other key areas.

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Data governance involves filtering, monitoring, security, and control over the databases used for applications, and it can be one of the most misunderstood and overlooked areas of IT.

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These days, corporations are looking for IT and data center managers with more than just technical skills; they're looking for someone with a capacity for non-technical skills, as well.

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■ **Chatsworth Products** introduced the Adjustable Rail QuadraRack and Adjustable Rail ServerRack. ■ **Dell** released the PowerEdge M-Series line of blade servers. ■ **Ensim** released Unify Enterprise Edition 1.5, a system-management application. ■ **Kroll Ontrack** released the latest version of its mailbox recovery tool, Ontrack PowerControls 5.0. ■ **Mirapoint** announced the Message Server S6000 email appliance and the RazorGate 6000 email security appliance. ■ **Novell** released the newest iteration of its ZENworks Endpoint Security Management platform, a policy-based security offering that lets users manage endpoint ports and devices to secure corporate data. ■ **SolarWinds** introduced ipMonitor v9.0, a network, server, and application monitoring system. ■ **Webroot** released a software security service called Webroot E-Mail Security SaaS aimed at small to medium-sized enterprises that want to improve perimeter security.

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☐ Monthly ☐ No Involvement

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PHYSICAL INFRASTRUCTURE FEBRUARY 1, 2008

Eliminate Air Recirculation Problems

Upsite Technologies' HotLok Blanking Panel Provides Effective, Durable Seal

KEEPING DATA CENTER EQUIPMENT cool is likely a top priority in your enterprise. And the situation is only going to become more essential in the near future.

One way to help is by preventing recirculation problems from occurring in your IT equipment cabinets with products such as Upsite Technologies' HotLok Blanking Panel. HotLok is an all-encompassing sealing solution for above-the-floor air recirculation problems in IT equipment cabinets.

The patent-pending HotLok Blanking Panel is engineered to provide a highly effective, durable seal. It features cantilevered sealing vanes that eliminate the gap between adjoining blanking panels or with installed equipment. Its ergonomically designed finger grips make tool-free installation and removal easy, safe, and fast.

HotLok Blanking Panels are engineered to stack anywhere in the server room They require no particulate-emitting containers for storage and are made of fire-resistant, recyclable, RoHS-certified plastic.

HotLok Blanking Panels are available in 1U and 2U sizes to fit 19-inch EIA 310-E-compliant mounting rail widths with either round or universal square openings. Each size can be purchased with or without a liquid crystal Upsite Temperature Strip. The Upsite Temperature Strip displays Celsius and Fahrenheit temperatures. The red, yellow, and blue ranges on the indicator bar demonstrate levels of temperature operation based on ASHRAE and equipment manufacturers' standards for equipment air-intake temperatures.

The HotLok Blanking Panels offer:

- Elimination of exhaust air recirculation within the cabinet, allowing for optimized cooling, lower energy consumption, and reduced operating expenses
- Reduction and stabilization of equipment air intake temperatures
- Reduction of the number and severity of hot spots within equipment cabinets
- Increased equipment availability, performance, and reliability
- Potential for greening of data center

Upsite Technologies HotLok Blanking Panel

An all-encompassing sealing solution for above-the-floor air recirculation problems in data center equipment cabinets

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STORAGE FEBRUARY 1, 2008

Dell AX4-5: Simple, Scalable Storage

SAN Array Offers Affordable, Easy-To-Use Features

AS SMES GROW, they add branches and remote offices, which increase the need for data storage without spending more of the IT budget. The storage therefore must be simple to deploy and easy to manage. To meet the need for entry-level storage for small and medium-sized enterprises, Dell has released the AX4-5 series of SANs.

Data on the AX4-5 is designed to be protected anywhere—in the controller, on the drive, or on the data path. Further reliability is provided through continuous background disk consistency checking; mirrored cache; and cache destaging, which means in the event of a failure, data stored in cache can be moved to disk, protecting against loss or corruption. Deployment and operation are designed for simplicity with the EMC Navisphere Express user interface. For users with multiple EMC arrays, this software offers a "single pane of glass" type of management in addition to data replication and migration tools.

Scalability and flexibility are crucial to the data storage solution of any SME, which is why the Dell AX4-5 is designed with scalable architecture and multiple drive options. The AX4-5 supports up to 60 drives on 64 hosts (which requires five enclosures), and with the EMC Navisphere Express, a user can add additional storage to the array in a short amount of time. Users can start with four drives and continue adding as greater storage needs arise. Supported servers include PowerEdge and PowerVault storage technologies.

The arrays support both Fibre Channel for 4GB architecture and iSCSI for IP networks, as well as SAS and SATA drives. This allows for tiered storage as users have the option of mixing drives to support high-performance needs, such as I/O applications, while using SATA drives for cost-effective storage. As needs arise, the AX4-5 series is designed to migrate data seamlessly and easily between different types of drives and RAID types.

Dell AX4-5

Starts at $15,699

A storage array that supports up to 64 hosts and up to 60 drives across five enclosures

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STORAGE FEBRUARY 1, 2008

RAID 6 For Maximum Data Protection

Winchester Systems' FlashDisk SX-2302S Offers Up To 60TB Of Storage

WHEN YOU'RE DEALING with massive amounts of storage, a RAID 6 setup is ideal because your disk array can survive two drive failures, and it provides an added layer of protection when rebuilding a drive. The FlashDisk SX-2302S from Winchester Systems is a SAS hosted disk array with dual-parity RAID 6 to offer maximum data protection.

The FlashDisk SX-2302S includes dual hardware ASICs (one for each of the independent parity calculations in RAID 6), so the SX-2302S offers RAID 6 performance similar to what you would see in a disk array that uses RAID 5. According to Winchester, RAID 6 dual parity offers 500 to 30,000 times longer mean time to data loss than RAID 5. The FlashDisk SX-2302S delivers a 1,150MBps sustained throughput and more than 78,000 disk I/O operations per second while maintaining mirrored cache for controller failover. The speedy ASIC hardware ensures successful disk rebuilds after a failure.

The 2U base unit comes with a single RAID controller and 12 high-capacity disks, and you can add four 2U expansion shelves—each with 12 drives—to expand the FlashDisk SX-2302S to 60TB when using 1TB drives. You can fit up to 252TB of storage into a 42U rack, making the SX-2302S ideal for enterprises with high-capacity needs. The SX-2302S also features two SAS 4X wide host ports for multihost connectivity without the costs of implementing a Fibre Channel infrastructure.

The FlashDisk SX-2302S supports full-featured protection in RAID 0, 1, 3, 5, 6, 1+0, 15, 16, 30, 50, and 60. It comes with 512MB of cache memory, upgradeable to 2GB of cache memory per controller. The FlashDisk SX-2300 line also provides real-time remote monitoring, automatic drive failure detection, failed drive rebuild, hot-swap drive capability, and online expansion. The base unit's nonvolatile cache uses a Li-Ion battery that works for a minimum of 72 hours, and it features dual hot-swap, redundant 460/530-watt power supplies.

Winchester Systems FlashDisk SX-2302S

Starts at about $16,000

A SAS hosted SATA disk array with RAID 6 that can expand to a storage capacity of 60TB with 1TB drives

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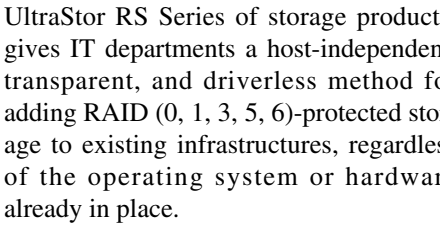
STORAGE JANUARY 18, 2008

Enhance Technology Adds To Its UltraStor RS Line

RS16 IP-4 Handles High-Impact, High-Volume Tasks



ENHANCE TECHNOLOGY'S RS16 IP-4, the newest member of the company's UltraStor RS Series of storage products, gives IT departments a host-independent, transparent, and driverless method for adding RAID (0, 1, 3, 5, 6)-protected storage to existing infrastructures, regardless of the operating system or hardware already in place.

Supporting Microsoft VSS (Volume Shadow Copy Service) and coming in a 3U, 16-disk modular rack design, the RS16 IP-4 offers such features as a built-in 64-bit RAID controller, up to 2GB of cache and 3Gbps SATA disks. Advanced features available via the RS232 interface include multiple array settings; such iSCSI parameters as connection mode, ID, and LUN mapping; and SNMP and security options.

Constructed to handle high-volume and high-impact network storage tasks, including those related to video broadcasting and backup and recovery applications, the UltraStor RS16 IP-4 also includes an ability to let administrators configure the appliance in just minutes. Additionally, auto-configuration abilities are available via a rear-located LCD control panel, and remote Web browser-based management and monitoring are also possible. An included menu screen allows access to set up the RS16 IP-4's configurations, as well as change settings as storage needs change over time. Physical protection comes in the way of two included redundant, hot-swappable power supplies and two fans to guard against hardware-failure interruptions.

Beyond the inclusion of quad GbE (iSCSI) ports, the RS16 IP-4 also includes N-Way Mirror and enterprise-class Snapshot for point-in-time recovery protection against accidental deletion of data. Additionally, the appliance is suitable for Microsoft Exchange and SQL Server environments, as well as disk-to-disk backup, database pools, image acquisition, near-line storage, data centers, media and asset libraries, and shared SAN networks. Further, dynamic online RAID expansion is possible without total system downtime being required.

Enhance Technology UltraStor RS16 IP-4

$4,750

An intelligent iSCSI RAID system that includes a 64-bit RAID engine and up to 2GB of cache and supports 3Gbps SATA disks

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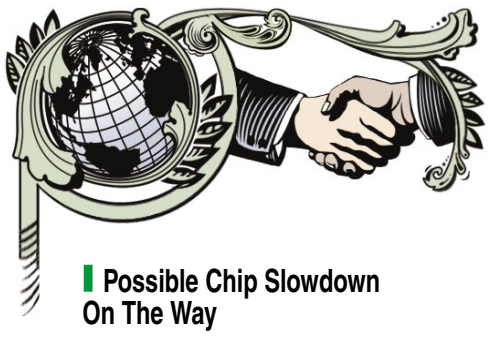

Possible Chip Slowdown On The Way

According to IDC, the fourth quarter of last year saw the global market for PC processors reach another high in the number of units shipped. But despite the continued growth in the market, IDC is predicting that the beginning of this year will see a slowdown in that growth because of the downturn in the economy. IDC also reports that major players in the industry did not see any significant changes in their market share numbers. The company reported that on an overall unit basis, Intel's market share grew 0.4% for a 76.7% share, while AMD's market share declined 0.4% to 23.1%.

Yahoo! Reportedly Plans Layoffs

Yahoo! is expected to lay off some of its nearly 14,000 employees as it works to revitalize the company by refocusing its efforts on areas that better support the company's priorities. Although Yahoo! has yet to make any official announcement, sources close to the company say the layoffs will likely amount to hundreds of employees. Yahoo! has made several investments and management changes in recent months as CEO and Co-Founder Jerry Yang has been conducting a thorough review of the company.

AMD Posts Loss

AMD reported a net loss of $1.772 billion, or $3.06 a share, during the fourth quarter of 2007. The loss included a net charge of $1.675 billion, attributed primarily to costs associated with AMD's acquisition of ATI in 2006. AMD's revenue during the fourth quarter was $1.77 billion, up 8% from the third quarter but about the same as the $1.773 billion it made in the fourth quarter of 2006. Last year AMD had revenues of $6.013 billion and a net loss of $3.379 billion. The company did have some good news, though, reporting record processor unit shipments, including about 400,000 quad-core processors.

Dell No. 1 In U.S. PC Market

Dell has extended its lead over HP for the fourth quarter last year for PC shipments in the Unites States. IDC reported Dell's U.S. shipments totaled 5.5 million, up 15.2% year-over-year and accounting for market share of 29.6%. HP shipped 4.5 million units, up 9.8% over last year and accounting for 24.3% market share. Acer came next with 1.5 million units shipped, up a whopping 294.2% from last year, while Apple shipped 1.06 million. HP still leads the international PC market, shipping 14.7 million units globally, up 23.3% from last year and accounting for 19% market share. Dell had 14.6% worldwide market share, shipping 11.3 million units, up 17.1% year-over-year.

Motorola Posts Small Profit

No. 3 mobile phone maker Motorola posted a fourth-quarter profit of $100 million, or 4 cents a share. That's down from a year-ago profit of $623 million. Quarterly revenue was $9.65 billion compared to $11.79 billion in the fourth quarter of 2006. In a statement announcing the results, Motorola CEO Greg Brown said, "The recovery in mobile devices will take longer than expected, and there is a lot more work to be done." Motorola shipped 40.9 million mobile handsets during the fourth quarter, with sales of mobile devices totaling $4.8 billion, down 38% from a year ago. Motorola's Enterprise Mobility Solutions segment was the bright spot of the quarter, with sales up 35% from a year ago.

Chinese Close To Top In Number Of Internet Users

Within the next few months, China is expected to take the world lead in terms of the number of Internet users, according to figures from the China Internet Network Information Centre. The number of Internet users in China topped 210 million in 2007, up from 137 million in 2006. The Chinese government's Xinhua News Agency says China is only 5 million users behind the United States, but China's 16% Internet penetration rate is significantly lower than that of the United States. Much of the increase came in rural areas, according to the report.

VMware Buys Thinstall & Foedus

VMware announced the acquisitions of two related technology vendors, putting the company in a position to continue expanding its reach in the virtualization market. VMware acquired Foedus, a solution provider with a focus on virtualization technologies and services. VMware also announced it had signed an agreement to purchase Thinstall, a developer of application virtualization technology. Thinstall can virtualize nearly any application, enabling a user to install a program on a USB stick and then run it on any PC without installing it on the computer.

Intel Fails To Meet Analyst Projections

Weak prices for memory chips were in part responsible for Intel's failure to meet the estimates from analysts polled by Thomson Financial. During the fourth quarter, Intel reported revenue of $10.7 billion, which is up 10.5% from the same quarter last year. Analysts, however, had estimated Q4 revenue would reach $10.8 billion. According to Intel, while sales of computing-related products met expectations, lower average selling prices for NAND memory caused revenue to be less than expected. Net income for the company was reported as $2.27 billion for the quarter, marking a 51% increase year-over-year.

IBM's Q4 Financials Exceed Predictions

Fourth-quarter revenue for IBM exceeded analysts' predictions and marked a 10% increase over the same quarter in 2006. The company reported revenue of $28.9 billion for the quarter. The increase is in part due to exchange rates and sales outside of the United States, including Asia, Europe, and emerging markets, the company said. During Q4, IBM reported earnings of $2.80 per share, which is a 24% increase over the same period in 2006. Last year's total revenue was reported at $98.6 billion, 8% more than total revenue for 2006.

Microsoft Appoints New CIO

In a rash of executive departures and new hires, Microsoft has appointed Tony Scott, former chief information officer at Walt Disney, to be the CIO and a corporate vice president at the software giant. Scott will head up Microsoft's internal IT systems, which are responsible for all the systems supporting marketing and services, global sales, and corporate processes. In Scott's previous position at Disney, he was the first CIO to manage the whole company's IT infrastructure. Before that, he served as General Motors' CTO, as well as vice president of operations at Bristol-Meyers Squibb. He replaces Stuart Scott (no relation), who was fired from Microsoft's CIO position in November.

Indian Nationals Receive More Than Half Of H-1B Visas

The U.S. government's "Science and Engineering Indicators 2008" study reveals that in 2006, 54% of the total number of H-1B visas granted went to Indian nationals. The next-highest percentage, 9%, went to China, followed by South Korea, The Philippines, and Canada, with 3% each. The study also showed that of the nearly 110,000 visa recipients in 2006, 51% worked in computer-related professions, up from 25% in 2002. The study, which the National Science Board authored, pointed to India, China, and South Korea in terms of economic output and said that "a slow shift of the epicenter of the world economic growth toward that region" may be occurring.

Apple Reports Fiscal Q1 Earnings

For its fiscal first-quarter financials, Apple surpassed Wall Street expectations, posting earnings of $1.58 billion, or $1.76 per diluted share, up from $1 billion, or $1.14 per share, for the same quarter last year. This year's quarterly revenue rose to $9.6 billion, up year-over-year from $7.1 billion. While the company said the results were setting new records, Apple's CFO Peter Oppenheimer said the company expects the usual slowdown after Christmas and decreased software sales to affect Apple's fiscal Q2 earnings. Apple's projections of $6.8 billion in revenue and 94 cents per diluted share were lower than Wall Street's forecast of $7 billion and $1.09 per share.

WATCH THE STOCKS

This information provides a quick glimpse of current and historical stock prices and trends for 15 major companies in the technology market.

Company	Symbol	Year Ago	Jan. 16 $	Jan. 23 $	% change from previous week
BEA Systems	BEAS	$12.21	$18.46	$18.40	▼ 0.33%
Computer Associates	CA	$24.54	$22.36	$21.43	▼ 4.16%
Cisco Systems	CSCO	$26.21	$25.15	$24.03	▼ 4.45%
Dell	DELL	$23.85	$20.68	$20.12	▼ 2.71%
Electronic Data Systems	EDS	$25.91	$18.28	$18.22	▼ 0.33%
Google	GOOG	$492.47	$615.95	$548.62	▼ 10.93%
HP	HPQ	$42.42	$44.34	$43.19	▼ 2.59%
IBM	IBM	$98.54	$101.63	$106.10	▲ 4.4%
Intel	INTC	$20.89	$19.88	$19.98	▲ 0.5%
McAfee	MFE	$28.90	$32.15	$30.04	▼ 6.56%
Microsoft	MSFT	$30.53	$33.23	$31.93	▼ 3.91%
Oracle	ORCL	$17.27	$21.92	$20.61	▼ 5.98%
Red Hat Software	RHT	$22.20	$18.68	$17.81	▼ 4.66%
Sun Microsystems	JAVAD	$6.35	$15.53	$14.82	▼ 4.57%
Symantec	SYMC	$17.52	$15.99	$15.26	▼ 4.57%

NOTE: This information is meant for reference only and should not be used as a basis for buy/sell decisions.

Upcoming IT Events

- FEBRUARY -

SCALE 6x - 2008 Southern California Linux Expo
February 8-10
Los Angeles, Calif.
www.socallinuxexpo.org

Comptel Plus Spring 2008 Convention & Expo
February 24-27
Nashville, Tenn.
www.comptel.org

- MARCH -

Gartner Wireless & Mobile Summit
March 3-5
Chicago, Ill.
www.gartner.com/it/summits/ra11/index.jsp

Secure IT Conference
March 4-6
San Diego, Calif.
www.secureitconf.com

Cornerstones Of Trust 2008
March 6
Foster City, Calif.
www.cornerstonesoftrust.com

Help Desk Institute Conference
March 9-12
Dallas, Texas
www.thinkhdi.com/hdi2008

VoiceCon
March 17-20
Orlando, Fla.
www.voicecon.com

Boston SecureWorld Expo
March 26-27
Boston, Mass.
www.secureworldexpo.com

Data Center World
March 30-April 3
Las Vegas, Nev.
www.afcom.com

- APRIL -

FOSE
April 1-3
Washington, D.C.
www.fose.com

Gartner Business Intelligence Summit
April 1-3
Chicago, Ill.
www.gartner.com/it/summits/bi6/index.jsp

RSA Conference
April 7-11
San Francisco, Calif.
www.rsaconference.com/2008/US/home.aspx

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www.ascdi.com

ITEC Miami
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SIX QUICK TIPS

Monitoring Your SME's Network Performance

by Robyn Weisman

• • •

All sorts of issues have made effective network performance more complex. Branch offices, the increase in telecommuting, and the growing reliance on the overall network to deliver everything from documents to VoIP require a network monitoring strategy that is comprehensive and nimble. Here are tips to get you started on tweaking your setup.

Monitor Both LAN & WAN Traffic

Lawrence Imeish, principal consultant at IT services and solution provider Dimension Data (www.dimensiondata.com), explains that historically only wide-area links were monitored. The logic was that WAN bandwidth needed to be monitored because it was typically limited and more expensive than LAN bandwidth.

"This philosophy may have worked well in past networks where data basically flowed in a hub and spoke pattern; however, it leaves your network vulnerable to local applications, viruses, and malware flooding local segments without you ever knowing," says Imeish.

"LAN monitoring is especially important in data center environments, where inter-data center traffic, such as file replication, synchronization, or backup, can cause congestion on aggregation links, which ultimately affects your entire data center's performance," he notes.

Keep Your Options Open For Identifying, Isolating & Troubleshooting

Matt Gowarty, senior product marketing manager at network monitoring provider Fluke Networks (www.flukenetworks.com), says that an important element for effective performance management is the ability to quickly resolve problems down to problem domain and root cause. To accomplish this task successfully, do not limit yourself to only one core troubleshooting methodology, given that different problems will require different ways of getting at that root cause.

"Look for a robust, unified solution that can utilize different types of data sources depending on the problem at hand. And look for a system where the reporting, regardless of data source, is rolled up into a centralized view with easy-to-understand charts and graphs tailored to individual users' unique reporting requirements," Gowarty says.

According to Gowarty, your network can more easily isolate problem domains when the cause of performance problems is quickly pinpointed between service provider issues or enterprise issues and even further down to network, application, or server. "Mean Time to Repair (MTTR) times will drop, and end-user Quality of Experience (QoE) will rise," he says.

Track Applications For Each Traffic Class

According to Gowarty, one parameter that can directly affect your users' QoE is CoS (Class of Service). To most efficiently utilize a network, IT must understand how much bandwidth each application is using in each class. "When adding new applications and people, this can be a challenge. Where do new applications fit in priority? What will the impact be on the network when more remote users are included?" he says.

Making all traffic flow as fast as possible is not enough. Real-time streaming applications, such as VoIP and IP-TV, require a very high CoS, while business transactions need a high class of service. In contrast, email and file transfers do not need the same real-time priority. Therefore, using a performance management system that clearly shows how much bandwidth that applications as diverse as voice, video, Web, FTP, and streaming are using will allow you to prioritize for each class, Gowarty says.

Ensure Reporting & Alerting Will Still Work During An Outage

Imeish points out that many times the network performance monitoring application sits on the very network it is supposed to monitor. In the event of a local outage, the alerting portion of the application, such as an SNMP trap or an email, will never reach the intended recipient because the alerting function has no way to bypass the outage.

Imeish recommends several options to counteract this issue. "First, you can install a dual-homed monitoring system on to separate networks. This will protect against a single link failure. Second, you can add multiple redundant alerting systems in separate geographies to allow one system to report on the other if it were to go down. Still another option is to use an offsite monitoring solution provider to ensure any outage on your network will be instantly reported," he says.

BONUS TIPS

QoS measures matter. "If your network is used for voice or videoconferencing, the equipment used will have QoS parameters like jitter and latency. While these represent symptoms rather than causes, these metrics are useful in tracking down the root cause by pinpointing time of occurrence and allowing you to spot patterns and trends," says Thomas Stocking, co-founder of network performance monitoring provider GroundWork Open Source (www.groundworkopensource.com).

Make sure your service providers deliver as promised. Matt Gowarty, senior product marketing manager at Fluke Networks (www.flukenetworks.com), says that because it is often difficult to verify whether your service providers are meeting their SLA (service-level agreement) guarantees, make sure your service provider sets up an independent performance measurement system that shows true SLA measurements to verify guaranteed levels of packet loss, availability, and delay. This system gives both you and your providers an upfront understanding about what will be measured and how.

"If specific metrics are not set up appropriately, it often becomes a 'he said, she said' game that frustrates both the enterprise and the service provider," Gowarty says.

Best Return On Investment:

Translate Network Performance Reports Into The Language Of Your Business

According to Dimension Data's (www.dimensiondata.com) Lawrence Imeish, the best way to keep your network running well and properly funded is to make sure everyone who uses it understands exactly how well it performs as it delivers critical services.

"Network and performance monitoring reports quantified into a dollar amount are a very powerful method of communicating your network's value because it is very easy for an organization to forget how well the network runs when there are few outages or service-affecting issues," says Imeish. "Even the very best managed networks run the risk of having their budget for regular maintenance and upgrades dry up."

Imeish, therefore, recommends that you translate your network performance reports into the language of your business. "Instead of reporting an uptime of 99.95%, try reporting an uptime of 99.95%, which is a 6% improvement over last year and directly led to $33.75 million in successful ecommerce transactions," Imeish says.

Best Tip:

It's Location, Location, Location For Networks As Well

"Network monitoring, like real estate, is all about location, location, location. However, unlike real estate, there appears to be no slowdown in the demand for additional bandwidth and network resources," says Daren French, vice president of business development at Xroads Networks (www.xroadsnetworks.com).

When deciding where to place your network monitoring devices, it is important to remember that most of these devices can only see the traffic that is on the same broadcast network as the monitoring device, says French. For example, broadcast traffic is traffic that is on the same network as the monitoring device. If there is traffic that you need to monitor and that traffic does not touch the broadcast network you are sitting on, such as traffic behind a router or firewall, then the monitoring device will never see that traffic.

"Typically we recommend placing the monitoring device in front of the network firewall in order to see all of the traffic coming in and out of the network via the Internet connection," French says. "This may or may not be the best place for your network, so it is important to consider what traffic you wish to see and how that will help you plan for network changes and expansion in the future."

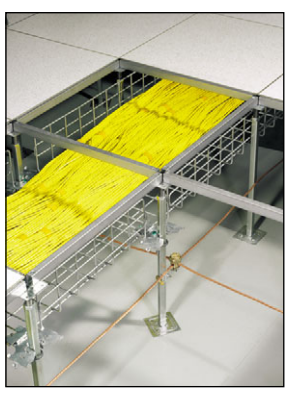
Physical Infrastructure February 1, 2008

Simpler Installation Of Underfloor Cabling

Panduit's GridRunner System Improves Cable Routing

Incorporating a cable-routing system into an organization's existing infrastructure can be a costly and time-consuming process. However, with the right system that is both adaptable and easy to install, routing data and power cables under a raised floor does not have to be a tremendous drain on a company's time and resources. Panduit has released a new series of products that make cable routing quick and convenient.

Panduit's GridRunner system includes preassembled mounting brackets that make installation time-effective and ensure a company's new underfloor cable-routing system can get up and running in a minimal amount of time. By providing the brackets, Panduit also helps companies reduce the cost of implementing the routing system.



The modular system consists of a series of wire baskets that make up the cable pathway; the drop-in wire basket sections make setup simple. When combined with the preassembled mounting brackets, there is no need to cut components to fit. The entire system is designed to assemble and install quickly.

The wire baskets also provide another advantage: With the open nature of the wire basket, air travels freely through this component to reduce the likelihood of overheating.

Panduit put a lot of thought into the design of the GridRunner components, and the parts do not damage cables due to poor design. The GridRunner parts have rounded edges and bend-radius control corners. Panduit has also used a bonding feature that electrically connects all components and provides electrical protection.

Because GridRunner is a series of individual parts, a company can combine drop-in wire baskets and preassembled mounting brackets in a way that makes sense for the company's IT infrastructure.

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MarketPlace NEWS

3Com Board Agrees To Merger

3COM'S BOARD OF DIRECTORS has given unanimous approval to a merger agreement between 3Com and affiliates of Bain Capital Partners. The acq... be completed during the first ... year, pending approval by 3C... ers. The deal is worth about ... cash, with shareholders recei... share of common stock they h... represents a 44% premium ... $3.68 closing price on Sept. ... the deal, Huawei Technologie... acquire a minority interest in t...

Congress Holds Hearing On Google/DoubleClick Merg...

LAWYERS FROM GOOGLE a... faced off at a Congressi... addressing Google's propos... of DoubleClick, a display ad... pany. Microsoft and other op... that the merger would cut ... online advertising, resulting ... prices. According to Micro... Counsel Brad Smith, the ... give Google control of 70% ... based advertising market an... online display advertising ma... Chief Legal Officer David ... however, argues that Dou... Google have different busi... calling Smith's estimates ... advertising market a "made-u...

Palm Reports Quarterly Lo...

MOBILE COMPUTING FIRM Pa... for its fiscal year 2008 first ... ended Aug. 31, showed ... $841,000, or 1 cent per share. ... revenue for the period increa... year's $355.8 million to $36... year, with smartphone reven... for $302.2 million, up 12% ... The sales volume of smartph... for the quarter also increased ... year to 689,000 units sold. P... weaker outlook for its curre... 2008 second quarter, foreca... ranging from $370 million t... with a loss of between 1 and 3...

AIM Vulnerability Disclose...

BECAUSE OF A FLAW in AOL's instant messaging client, cyber miscreants could launch a worm attack. Researchers at Core Security Technologies first discovered the vulnerability, which involves the way the AIM client displays HTML messages and is in the AIM 6.1, 6.2 beta, AIM Pro, and AIM Lite versions of the program. As of press time, AOL had deployed host-side filtering on its AIM servers in an attempt to stop attacks, but the company has not yet patched the client software. As a workaround, AOL is encouraging users to download the most recent version of the AIM beta client, version 6.5.

A number of Web sites have since posted instructions on how to roll back the iPhone firmware upgrade, although reports vary as to how effective the rollbacks are and the exact capabilities users can regain.

WinXP Gets Extension

DUE TO CUSTOMER DEMAND, Microsoft will continue to sell its Windows XP operating system to large computer makers and at retail through June 2008, which is five months longer than originally planned. In addition, iPhone users were again warned via a message screen before installing the firmware.

WATCH THE STOCKS — This information provides a quick glimpse of current and historical stock prices and trends for 16 major companies in the technology market.

Company	Symbol	Year Ago	Sept. 26 $	Oct. 3 $	% change from previous week
Avaya	AV	$12.05	$16.96	$16.95	▼ 0.06%
BEA Systems	BEAS	$15.20	$13.33	$13.94	▲ 4.58%
Computer Associates	CA	$23.80	$25.84	$25.64	▼ 0.77%
Cisco Systems	CSCO	$24.31	$32.98	$32.45	▼ 1.61%
Dell	DELL	$23.56	$27.98	$27.58	▼ 1.43%
Electronic Data Systems	EDS	$24.27	$21.90	$22.48	▲ 2.65%
Google	GOOG	$429	$568.14	$584.02	▲ 2.8%
HP	HPQ	$38	$50.62	$50.36	▼ 0.51%
IBM	IBM	$84	$117.30	$116.40	▼ 0.77%
Intel	INTC	$20.62	$25.91	$25.81	▼ 0.39%
McAfee	MFE	$25.54	$34.59	$36.58	▲ 5.75%
Microsoft	MSFT	$27.72	$29.50	$29.45	▼ 0.17%
Oracle	ORCL	$18.55	$21.72	$21.57	▼ 0.69%
Red Hat Software	RHT	$21.51	$19.89	$19.50	▼ 1.96%
Sun Microsystems	JAVA	$4.97	$5.62	$5.76	▲ 2.49%
Symantec	SYMC	$20.40	$19.42	$20.15	▲ 3.76%

NOTE: This information is meant for reference only and should not be used as a basis for buy/sell decisions.

Product Releases

Continued from Page 16

screens. Any third-party signage-control system is compatible with the AV200 series of products.

SECURITY

■ **Kryptiva** has released Email Encryption Architecture, which seamlessly integrates into existing infrastructure to enhance encryption and authentication capabilities and critically examines business-to-business email for compliance and liability reduction. Email Encryption Architecture includes Kryptiva Packaging Plugin, which allows direct integration of Email Encryption Architecture with the user's current email application; Kryptiva Packaging Server, which packages the email for authentication, encryption, and proof of delivery; and Kryptiva Online Services, which authenticate incoming email. The solution is free to download and install and is easy to deploy and manage. Additionally, IT administrators can elect to enable a subsection of email accounts to deploy Email Encryption Architecture.

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■ **SafeNet** released a new USB token to stop data theft. The iKey 4000 USB token, which is PCI DSS (Payment Card Industry Data Security Standards)-compliant, uses AES encryption technology and offers hardware-based key encryptions, generation, storage, and digital signing. It supports digital signatures, third-party PKI-enabled applications, and email encryption. SafeNet is targeting the iKey 4000 at merchants who need to comply with the PCI DSS.

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■ **SecPoint's** Web Filtering Proxy, designed for use with its Protector, is powered by a large database of several millions of blacklisted Web sites from more than 54 categories used to filter Web use. Web Filtering Proxy adds thousands of new blacklisted Web sites to the cache of existing blacklist sites every day with its advanced pattern recognition, allowing pornography, news, and sports Web sites, as well as free email providers, to be blocked. The proxy is updated several times daily through a connection to SecPoint's Web site.

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■ **Spectra Logic** has announc... offering its hardware-base... Standard Edition BlueScale En... free. The company says beca... management operates via th... BlueScale 10 management int... now have encryption as well ... agement options from one ven... further software needed. Blu... cryption is available as a stan... in the enterprise-class Spe... midlevel T120, and departmen... libraries, which users can co... LTO, SDLT, SAIT, or integ... disks. The T950, T120, and T... Fibre Channel, iSCSI, and SC... The BlueScale Encryption ... agement uses STEP (Stan... Encryption Protocol) format... encryption libraries are desig... FIPS 140-2-compliant chip. T... are compatible with all majo... software packages. The com... fessional Edition BlueScale ... which includes a broader featu... at $12,000.

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■ **StillSecure** has unveiled S... Lite, a free version of its NA... access control) solution. Safe Access Lite is a monitor-only version of Safe Access that evaluates the security posture of up to 250 endpoints using any or all of StillSecure's three testing methods—agentless, agent-based, and Web-based nonpersistent agent. By using Safe Access Lite, users can accelerate the NAC process without network changes or posing risk to end users. Safe Access Lite will test for operating system patches and hotfixes, security and browser settings, personal firewall, antivirus/antispyware, and re-

Installation Services by using remote access technology to position Symantec Endpoint Protection securely over the Internet. Services include a preinstallation session with a Symantec specialist, delivered at the customer's convenience. Symantec Consulting Services can provide assistance for larger Symantec Endpoint Protection and Network Access Control environments with solutions for integration and operation. Symantec Endpoint Security Residency Services combine existing staff with Symantec resident con-...lutions for ...f environ-...

announced th... become carbon... year, making i... maker to annou... effort to balanc... carbon-reducing... ity, Dell will in... including using ... energy-efficien... energy-efficient ... strongly encou... report and lower...

Sun Focuses...

ACCORDING T... CEO Jonathan ... be "radically inc... age." Strategie... include the combination of Sun's Storage and Server product teams, creating a new Systems team, which will focus on "the evolution and convergence of computing, storage, and networking systems." In addition to Sun's focus on being a multiplatform storage provider, Schwartz says the company will begin working with customers "that see more standardization and integration in their future data centers."

STORAGE AUGUST 10, 2007

Virtual RAID Boosts Video Surveillance Storage

Pivot3 Enters The Market With An IP-based RAID Platform

START-UP PIVOT3 has entered the scalable network storage market with a "virtual distributed RAID" platform, which the company says can slash storage infrastructure costs by half while improving scalability and data availability.

The RAIGE (RAID Across Independent Gigabit Ethernet) storage cluster is the first system from Pivot3 based on a block-level virtualization architecture that eliminates

the need for traditional RAID hardware and storage controllers. Data-protected storage is supported across networked nodes, called Databanks, which are built using x86-based servers connected by Gigabit Ethernet.

"This is an alternative that not only can reduce cost up to 50% but can also provide five times or more the performance of traditional storage," says Jeffrey Bell, vice president of marketing for Pivot3.

The ability for RAIGE to simply and cost-effectively handle data-intensive application workloads has made it attractive to customers within the video surveillance space. Breaking into that market is requiring Pivot3 to work within the existing partner community, a practice the company is likely to continue to use as it targets additional markets.

"Businesses considering video surveillance are looking at cameras or video management software and are working with security integrators," Bell says. "We've been working with those types of providers to get the leverage we need in the market."

The platform is well-suited for apps requiring content aggregation, including use for medical records, oil and gas exploration, and archiving. The use of standard server platforms can allow a business to create a pay-as-you-grow model, adding drives as needed without disruption.

"Data recovery times are five to 10 times faster than other storage alternatives due to system-wide parallel processing and a Pivot3-created algorithm that optimizes the rebuild process," he says. Data is continuously made available through volume provisioning changes that support on-the-fly configuration changes.

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Reach Out To Remote Systems

Raritan Dominion KSX II Offers New Management Features In A Streamlined Package

WHEN NETWORK PROBLEMS and server errors crop up, IT personnel must be able to rapidly diagnose and fix the problem. That means remote access and control is necessary, and security is a must.

Enter the Dominion KSX II. It's a new, improved version of Raritan's remote access appliance. The new model brings together serial-over-IP, KVM-over-IP, and power management and houses them in a streamlined package. The Dominion KSX II is intended for secure, out-of-band control of servers, PBXs, routers, and switches in branch offices and remote sites. It also supports virtual media file transfers to allow rollouts of updates and bug fixes.

Users have BIOS-level access to remote systems, right down to being able to reboot a server or restart a switch. (Some power monitoring and cycling requires the use of Raritan's Dominion PX power strips with the KSX II.) A browser-based HTML GUI offers a top-down look at the equipment under the unit's control.

All of the Dominion KSX II's communications are protected with 256-bit AES and integrated authentication. It also supports strong passwords and locks out users after a number of failed logon attempts.

Another key feature is Absolute Mouse Synchronization, which maintains the remote user's mouse settings no matter which server is being controlled. In addition, the Dominion KSX II is CommandCenter-certified, so multiple units (and connected hardware) can be commanded from one IP address. That's a big help to organizations with many far-flung resources.

Should the network fail, the Dominion KSX II offers a built-in modem with dial-back capability. The appliance works with AAA servers, as well as SNMP and Syslog event management systems.

The KSX2-144 includes four KVM, four serial, and two power control ports; the KSX2-188 has eight KVM, eight serial, and two power control ports.

Raritan Dominion KSX II

KSX2-144: $1,999; KSX2-188: $2,499

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Integration with EdgeFort appliances. This integration allows for deployment of hardware, software, and/or appliances from the data center to the remote branch.

New GUI. This Web 2.0-based user interface now includes online help and wizards, making the program easier to install, configure, and manage.

Enhanced virtual tape library. It now offers the highest level of granularity on how files, directories, and tapes are managed. Version 7.0 has also included integrated VTL for better disk-based backup structure and quicker backups and recovery. 1TB of disk capacity is included.

Extended platform. Version 7.0 has been expanded to support Novell OES 2, Mandriva 2008, Windows Server 2008, and Mac OS X Leopard on Intel.

Arkeia Network Backup version 7.0 includes other innovative data protection features, such as triple backup verification, automatic SCSI detection, and client-side encryption. Additionally, Version 7.0 is suited for enhancing SAN environments, and it offers just one solution for all platforms. Arkeia Network Backup version 7.0 supports open-source systems such as Linux, MySQL, PostgreSQL, Open-Xchange (including SLOX), and LDAP.

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Bridging The Divide

How SMEs Can Better Understand What Their Businesses Need From IT

by Christian Perry

• • •

Within almost every enterprise exists a Berlin Wall of sorts that prevents business executives from effectively communicating with IT staff and vice versa. There are myriad reasons for the wall's existence, ranging from a lack of desire to converse with the "other side" to an inability to speak in terms understandable by the others.

When companies take steps to tear down that wall, they generally find that the ensuing

communication leads not only to a better understanding of what business needs from IT but also an outright increase in business efficiency.

"IT executives have a unique perspective on an enterprise since they are usually involved to some extent with every business unit," says Patrick Gray, president of Prevoyance Group (www.prevoyancegroup.com), an IT strategy consulting group. "Where IT fails to leverage this deep connection to the business is that it continues to think in terms of technology, rather than becoming a 'student of the business.'"

Getting Serious

Strategies for bridging the gap between business and IT range from simple to complex, but all share the common goal of helping IT determine how to best support the business side of an enterprise. Midsized companies (with upwards of 1,000 employees) struggling with dense walls between the sides may need a formidable plan of attack that approaches the problem from multiple angles.

"Enterprises can better understand what the business side—and, of course, business user community—needs from IT by creating an IT governance model within an organization that enlists key business stakeholders to serve on a committee structure with senior-level IT management," explains Joshua Aaron, president of Business Technology Partners (www.btp.net), an IT consulting firm.

According to Aaron, this model typically entails three levels, with the first including the IT project management teams that can be organized around specific applications or systems engineering efforts by product line or business area. At the second level is the IT project management office, which is a committee of senior IT management and key business stakeholders. At the third and final level of the model is the IT project steering committee, which includes C-level management from both the business and IT sides.

"Leadership comes from the top down," he says. "So, it is critical to get sponsorship with the senior executives of the organization for this type of IT governance model at the outset."

All In The Family

For smaller companies or those not looking to create a model based on their organizational structure, plenty of other methods have proven to help IT understand the needs of the business. Bill Pfleging and Minda Zetlin, co-authors of "The Geek Gap: Why Business and Technology Professionals Don't Understand Each Other and Why They Need Each Other To Survive," explain that one method is simply to get both sides talking—but that can be easier said than done.

"One company we talked to bragged to us that they had 'fixed' their Geek Gap-related communication problems by identifying one employee who could speak intelligibly with both sides," Pfleging says. "They then made it mandatory for all communications to go through her, [reasoning] that this would then eliminate the need for others in the company to have to 'speak geek,' as it were. But when we talked to this go-between and asked, she nodded and said, 'Yes, I'm the bottleneck. Plus, not only is everything slowed down by making it go through me, I can't get any of my own work done.'"

Instead of designating a go-between, the authors recommend developing a "more is better" philosophy because management often tends to think the communication breakdown is merely a language problem that can be fixed by a translator. Further, Pfleging and Zetlin recommend creating a true partnership between business and IT, which requires IT keeping in mind that the business side thinks in terms of use (What can I do with this finished product?) rather than process (How is this product made?). In turn, that knowledge needs to be communicated with executive counterparts on each side.

Hit The Books

Although the need for communication between the two sides is crucial, IT can truly understand what the business needs when it understands the business itself. According to Prevoyance Group's Gray, IT executives—and CIOs in particular—should have a thorough understanding of the company's products, competitors, challenges, and opportunities.

"When they gain this understanding, they can speak with other executives in the universal language of business and also begin to leverage their visibility into all areas of the corporation," Gray says. "IT can transform from an entity that sits in the corner, waiting to be summoned to install a system, to a unit that can suggest process improvements or even business opportunities based on its knowledge of the corporation's internal process." P

Three Quick Tips

Even if a company has begun developing a strategy for better understanding what the business needs from IT, it's always possible to add steps to boost the plan's effectiveness. Here are several quick tips.

1. **Provide justification.** "IT needs to always show a bottom-line ROI on all projects, ensuring that projects are in line with business goals."
   — Marty Puranik, president of Atlantic.net

2. **Respect your co-workers' abilities.** "Keep in mind that your counterparts across the geek-suit divide have as valid a skill set as you do and have probably spent as much time learning their skills as you. While the suits may not know much about tech, neither do IT folks know much about business, and both are necessary in the modern business world."
   — Minda Zetlin, co-author of "The Geek Gap"

3. **Create IT focus groups.** "Enroll groups of business users to provide direct feedback on IT innovations through a focus group structure as new products and services are deployed."
   — Joshua Aaron, president of Business Technology Partners (www.btp.net)

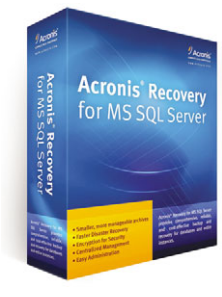
"IT executives have a unique perspective on an enterprise since they are usually involved to some extent with every business unit."

-Prevoyance Group's Patrick Gray

Storage January 25, 2008

Secure Database Backup

Acronis Recovery Makes It Easy To Back Up Your MS SQL Database



Every company must ensure that its database backups meet regulatory requirements while also being easy to manage, maintaining space efficiency, and retaining the ability to be restored quickly if needed. Acronis Recovery for MS SQL Server helps companies meet these requirements.

Recovery gives IT managers and database administrators the ability to securely back up and recover databases, including tables, logs, and other components. It has the ability to recover from a point just before a failure or disruption without loss of work, enabling business functions to be restored without significant disruption.

Key features include:

Wizard-driven management console. This console makes the product easy to use, even for those without extensive database administration experience. A wizard guides you through the scheduling process to reduce the possibility of errors. The Management Console also provides centralized management by automatically discovering all database servers and displaying them with status information.

Smaller archives. Acronis Recovery can create backup images that are up to 90% smaller than the original databases. Different compression levels are available to allow you to optimize for faster performance, smaller size, or a balance of both.

Encryption. For added security, Recovery uses industry-standard encryption technology; AES is available with three key lengths: 128, 192, and 256 bits.

Resource management. Companies can allocate CPU and bandwidth resources during the backup process to keep the process transparent to users.

Disaster recovery plan. Administrators can create and email disaster recovery plans that include step-by-step instructions for recovering database information. With these instructions, staff—even those without database administration skills—can restore databases quickly.

FTP support. For even greater peace of mind and security, Acronis Recovery for MS SQL Server lets companies back up database images offsite via FTP.

Acronis Recovery for MS SQL Server

$499 per server

Gives companies the ability to recover a database to a good configuration in minutes

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Reduce Security Costs At Your SME

Continued from Page 1

access control and policy creation, but also better recognition of who's being hired.

Consider Unified Threat Management Appliances

When there are a number of security devices in a single environment, interoperability can become an issue; an intrusion detection system may not play well with antispam software, for example.

UTM (Unified Threat Management) appliances are becoming increasingly attractive because they can run a variety of services, including intrusion prevention, antispam, antivirus, VPNs, and content filtering, according to Stan Oien, Security Specialist at CDW (www.cdw.com).

"UTM is a cost-effective, all-in-one solution, making it easier for small-business owners to apply security services buying just a firewall at the gateway level," he says. "This solution also allows for centralized management and a one-vendor solution, which is easier to support."

Outsource The Email Management

A major security area is email and the way that it can make a network more porous, particularly if there are insider threat issues. One way to lower security costs is to use hosted email security services, says Oien.

"These services are beneficial for small businesses that have an Exchange server and do not want to manage their own antispam services but require effective spam filtering," he says. Some services even offer a management console for granular control, he adds, so an IT department can set quarantines on individual users.

Investigate Free Security Tools

The marketplace certainly doesn't lack free software, and companies can save some budget funds by downloading applications that are proven to do specific tasks such as network monitoring or activity log creation.

UTM appliances are becoming increasingly attractive because they can run a variety of services, including intrusion prevention, antispam, antivirus, VPNs, and content filtering.

But to be truly cost-effective, the tools shouldn't create more work, notes Eric Skinner, CTO of security firm Entrust (www.entrust.com). Keep in mind that nearly all free tools lack user support, and for the rest, "support" usually means an informal email discussion between the IT manager and the developer.

"As long as you have the in-house expertise to fix whatever might go wrong and there's a strong level of automation within the organization, then free tools might come in handy," says Skinner.

Take Advantage Of Vendor Relationships

Want some insight on security but don't want to pay consultant fees? Look to established vendors, particularly those that have had a relationship with the company for at least a few years. Vendors can often talk not only about their products but also have access to insight about what other companies have done and ways that they've cut costs while increasing security.

"A reliable vendor partner is able to view the business' network environment from a much higher level and can recommend and provide products and services that complement each other," says Oien. "This relationship will also minimize inefficiencies such as security gaps or product purchases that simply aren't the best fit for the business' environment."

Keep in mind, of course, that vendors tend to want a company to use their products, and some advice can be slanted toward more purchasing. But vendors also want long-term relationships, and advice and even price breaks can come as a result of longer discussions. P

Three Quick Tips

Reducing security costs doesn't always require extensive policy and strategy modifications. Here are a few fast ways to get more security, affordably:

1. Create a reliable, easily duplicated process for permanent data destruction.
2. Assign one staff member to be in charge of quality control for security procedures and to issue a regular report on what's working and what's not.
3. Talk to your company's insurance providers and lawyers to understand what's covered in the case of a breach.

Automate Role Management & Identity Compliance

Continued from Page 1

"solutions" such as common passwords or password sharing, periodic access management updates rather than real-time dynamic management, or in extreme cases, no management at all. When inadequate processes and procedures catch up to an organization, the costs can be enormous.

"Even though small companies don't often make data breach headlines, they may be most at risk because running a lean organization may result in fewer resources dedicated to what are perceived as options," notes Ponemon. "Personnel responsible for identity management (IDM) may have other priorities, and funds may not be allocated for investments in security and data management technologies."

Identity Management Benefits

The good news is that a number of excellent IDM products are out there that, without undue complication or burdensome expense, can give companies the tools to monitor activity, manage identity, enforce policy, and, as a result, go a long way toward lowering an organization's overall risk profile.

All enterprises, no matter what their size, should consider automating their role and identity management processes. It helps establish a framework where tight controls can be interjected to secure the enterprise and achieve any type of compliance or internal policy goal. In addition, it greatly reduces the operational inefficiencies associated with managing user access in an ad-hoc manner.

"Most small to midsized enterprises have far fewer IT professionals on staff to manage the overall IT infrastructure, making the user access management issue more critical than their large counterparts," says Steve Tiches, senior vice president of Vaau (www.vaau.com). "However, it is much easier to implement a successful automated role management system into a small enterprise than a large enterprise, and the benefits or time to value can be realized in a much shorter time."

Tiches recommends that companies seek out vendors that not only offer automated role management tools that have a proven track record of success but have a strong consulting services capability with an implementation and management methodology that has been used successfully in the field at several different types of organizations.

In some cases, it may be wise to engage with a services vendor for role analysis and recommendation. Others may use identity and access management tools from independent software vendors to automate the identity life cycle process. These tools can help organizations provision and deprovision user access, create access compliance reports, and perform role comparison analysis—all critical capabilities for business success.

"Employee promotions, reorganizations, function changes, additions, and departures can complicate company efforts to ensure users possess the right level of information access," says Merritt Maxim, senior product marketing manager at CA (www.ca.com). "Automation of identity and role management should be as dynamic as the employees themselves. SMEs can use role management tools to save money and reduce administrative overhead while improving their risk and compliance posture."

While a team of specialists may be tasked to handle management and compliance concerns at a large enterprise, SMEs may not be able to have a dedicated team or person for this work.

The management and compliance concerns with a large enterprise, after all, remain exactly the same with small and midsized enterprises. While a team of compliance specialists may be tasked to handle these concerns at a large enterprise, SMEs may not be able to have a dedicated team or person for this work. Instead, these smaller organizations may need to place role management and compliance responsibilities on an IT staff member. Doing this only increases the need for software tools to ensure compliance.

"Most major security vendors carry software suites that meet the needs for role management and compliance," says James Rankin, CDW technology specialist. "These software suites are designed to initially prevent errors in role management by providing a layer of automation and role checking when provisioning users."

Most of these software packages also can regularly audit various systems in the infrastructure, such as the Active Directory or LDAP (Lightweight Directory Access Protocol) database, to ensure that the stated compliance policies are, in fact, being met in practice. Auditing roles and permissions is an important component of this solution, as manual processes almost never have anything comparable.

Don't Stay Manual

Once a small business gets up beyond a certain number of users, manual management of user rights becomes a nightmare.

"The rapid pace of change often forces enterprises to adopt cumbersome manual processes such as spreadsheets, highlighters, and three-ring binders—even though it's universally acknowledged that there are better alternatives," says Maxim.

So before top management starts asking embarrassing questions such as "Who's on system X?" managers should seriously consider IDM technology. As well as a way to prevent the occurrence of serious security breaches due to access mismanagement, it offers an automated and accurate method of collecting and managing user access information across the enterprise.

"These tools provide the ability to take user access information and generate roles that are subsequently used to automate the user management process," says Tiches. "Automated role management is just starting to truly show its benefits as more companies take advantage of the new tools on the market and roll out programs that show positive results in a short period of time." P

Identity Management Products

Advanced Toolware User Management Resource Administrator
An enterprise-level software package for Active Directory, NT, and local server user account management
www.advtoolware.com

CA Identity & Access Management
Includes Web, enterprise, federated single sign-on, identity administration, user provisioning, user directory, and Web services security
www.ca.com

Microsoft Identity Lifecycle Manager
Helps manage the life cycle of a user's digital identity by providing identity synchronization, certificate management, and user provisioning
www.microsoft.com

Quest Software Vintela Authentication Services
Extends the user authentication capabilities of Microsoft Active Directory to Unix and Linux
www.quest.com

Symlabs Federated Identity Suite
Gives you a federation server with any combination of identity provider, service provider, or identity Web services capabilities needed to supplement existing applications
www.symlabs.com

Vaau RBACx
A product suite that helps enterprises manage the life cycle of identities from role definition through the ongoing and continuous process of auditing and certifying what IT resources a user has access to and what the user is actually accessing
www.vaau.com

Keep Your Network Up & Running

Easy Ways To Improve Uptime On The Network

by Mark Brownstein

• • •

Network uptime has been the Holy Grail of IT managers for years. It's not hard to find horror stories about the thousands of dollars in lost sales for each minute a network goes down. It's not hard to find tales of lost orders, appointment records, or some other transaction because a system went down, taking the data with it.

It should be clear that 100% uptime means no downtime. The terms don't always make complete sense, however. If a network is up but one of its servers is overburdened and slows down network response times, is this downtime? Regard-less of how you define uptime or downtime, there are many things that can be done to improve your company's uptime.

Verify, Test & Test Again

Many products can help to reduce threats to your system and maximize network uptime. Derek Wise, chairman and CTO of GNi (Global Netoptex Inc.; www.gni.com), a managed service provider, suggests that you take considerable care in planning any expansions and that you carefully audit your current structure. "In our opinion, the biggest thing where people fail is they implement new tools but fail to make sure they operate properly," he says.

Wise believes in a "trust no one else" approach when it comes to choosing a service provider. "We never go into a data center before we test it out with live customers." It's sort of like the old political saying about the enemy—trust but verify. For the sake of your business, Wise suggests that you should know how things are working before actually betting your company on them.

"Trusting that a data center will give you an electrical diagram is not acceptable," Wise says. "We pull cables; we break things; and we make sure that they're not breakable before we turn them over to our clients. Once your systems pass your strict testing, you'll be able to bring them live."

"Plan for what could go wrong, create scenarios of situations that could happen, and let this guide you to put together a strategy."

-Coughlin Associates' Tom Coughlin

Control Access To Your Systems

Maintaining a maximal amount of uptime can be a serious challenge to system administrators. One of the reasons is that challenges to a system or network can come from many places. For example, Dan Clark, vice president of marketing at Lockdown Networks (www.lockdownnetworks.com), tells of a client who had "attacks on an ancient Telex machine that was sitting in a forgotten corner of their data center. They didn't know it was there, and it wasn't properly patched. Someone had gotten into their network through this Telex."

Lockdown's NAC products conducted a complete scan of the company's network, detecting security vulnerabilities and reporting on the unknown Telex. "We deliver an appliance that assesses the devices on a network in two ways. First, there's a network-based scan with tests going directly to the network devices, coming directly from our appliance. Second, you can install a software agent on a PC or a Mac. This agent then opens up a communication path to our product. It can do tests that we can't do directly from our appliance," Clark says. The Lockdown NAC is used "to assess all devices on a network—not just PCs—but anything on a network to assure that it is free from known vulnerabilities to attack," he notes.

Evaluate The Impact Of Change On Your Network

Kevin Kiely, president of GTC Networks (www.gtcnetworks.com), notes that you must carefully consider the impacts that changes will make before implementing them. "We offer a managed IP telephony environment, a VoIP infrastructure. Part of what we do is manage the whole process—we coordinate change management. One oversight that some people make is to make changes without any thought about the impact of the changes. The best thing (to maximize uptime) is planning and testing (before bringing anything live)."

"We heavily test. We make sure we have a great backup and recovery strategy in respect to our processes and systems. We have redundancy where we feel it's necessary," Kiely says.

Tom Coughlin, president of Coughlin Associates, a consulting firm and sponsor of storage-related conferences, also urges careful preparation to assure that any downtime is kept to a minimum. "One of the things you need is a good recovery plan," he notes. "Plan for what could go wrong, create scenarios of situations that could happen, and let this guide you to put together a strategy for dealing with these problems." Being prepared for disaster can help significantly reduce your downtime in the event of a system failure, a power failure, a successful attack on your network, or some other potential disaster. Coughlin says that an organization's systems should be redundant and suggests that critical systems have failover capabilities. P

Three Quick Tips

Mark Ungerman, a product manager at Symantec (www.symantec.com), has three general suggestions of areas to focus on when considering improving your network's uptime.

1. **Make sure your network's systems are properly configured for use.** Make sure that best practices for your type of business are being followed. It's important to know that your network is properly configured for availability and security.
2. **Configure network security.** Having a good antivirus and malware protection protocol and the ability to detect and filter spam and malware that comes through email is also critical.
3. **Protect your storage and your systems.** It is important to have common-sense protections in place for your servers. Consider data protection and decide if it's important to mirror your data, or even to mirror it to another location. Save your system states and server states so that you can quickly recover from any catastrophic failure.

Improve Application Delivery

A10 Networks' AX Series Next-Generation Server Load Balancer Provides Industry's Best Price/Performance

Two AX Series switches from A10 Networks are designed to provide reliable, cost-effective application-delivery platforms.

A10's AX Series is the industry's best price/performance advanced traffic manager, helping enterprises maximize application availability through a scalable, high-performance application delivery platform.

The AX's ACOS (Advanced Core Operating System) architecture is revolutionary by market standards because of its native multisystems support, which includes an optimized multi-CPU architecture built from the ground up designed for performance, scalability, and reliability.

The AX's ACOS architecture scales performance across multiple decoupled CPUs and specialized programmable ASICs linearly to ensure maximum scalable performance, including when all of the features are turned on. The AX Series' aRule Advanced Scripting technology provides ultimate policy creation flexibility to deliver rich traffic inspection and switching capabilities, helping organizations adapt to ever-changing conditions and application types.

The end result is a switch with uncompromised performance even when all features are turned on, which helps organizations reduce data center power, server, and rack space requirements. Plus, all features are included in the standard list price.

The two newest AX Series appliances, 2000 and 2100, are 2U appliances designed for enterprise data centers and server farms. The AX 2000 has two CPUs, 2GB of memory, eight Gigabit over copper ports, two G small-form factor pluggable fiber ports, and an 80GB hard drive. The AX 2100 has those same components, plus an additional two CPUs and two G small-form factor pluggable fiber ports; the 2100 also has dual 80GB RAID 1 hard drives.

All AX models feature carrier-grade hardware, the industry's best SSL and Layer 4-7 price/performance, support for IPv4 and IPv6, and an industry-standard command-line interface and easy-to-use GUI.

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IT Outsourcing & The SME

Learn To Manage The Outsourcing Trend In Your Enterprise

by Don Reisinger

• • •

Outsourcing has quickly become a boon for organizations trying to cut costs without sacrificing productivity and a bane for those IT professionals who may be affected by the cost-saving maneuver. Regardless, small to midsized enterprises need to be able to adapt to this growing trend in the industry and find a way to manage it as well as possible.

Of course, doing that is not nearly as easy as it may sound. A host of issues could easily arise that may throw a company's outsourcing initiative off track, and the options available to SMEs may not be as ubiquitous as some may think. That said, there are still a number of things every IT manager should be aware of before she endeavors to manage IT outsourcing.

Juggling Providers

Rather than outsourcing, some companies have instead chosen to implement a strategy called multisourcing, which is basically a combination of providers for services. Rather than using a single outsourcing provider to do everything, some companies hire providers for discrete functions. For example, using one provider for IT and another for human resources can prove to be quite useful to companies trying to save capital.

And while some companies have found that multisourcing is a valuable tool, others realize that a number of pitfalls can arise. As Dean Davison, vice president of research for neoIT (www.neoit.com), points out, "The difficulty in multisourcing is finding the right balance of providers. If a client hires too many vendors, then the integration and management of providers costs more than the value they provide."

Because of that, IT managers should be well aware that major outsourcing services

such as EDS (www.eds.com) and IBM (www.ibm.com) may provide a host of benefits on a holistic level but may prove to be somewhat useless on a more divisional basis.

"In 2008, we expect to see some early adopters of multisourcing to consolidate around fewer providers to reduce their service integration costs and harvest the benefits of better relationship management with fewer strategic suppliers," says Kurt Potter, research director at Gartner.

More Than Meets The Eye

According to Gartner Research, outsourcing is growing at an 8% clip, but as Potter points out, that certainly is not the rest of the story. "Although user organizations often have fundamentally sound procurement organizations to initiate outsourcing contracts, for many, their IT sourcing strategies and governance structures are still immature, lacking altogether, or misaligned with enterprise objectives," he notes.

Merely outsourcing employees isn't as simple as it may seem. "Because these organizations lack the basic building blocks for successful vendor management and outsourcing success, expected cost savings and other benefits are difficult to obtain," Potter says. "In extreme cases, the lack of needed trust and control to optimize the outsourcing relationship results in deal failure. Also, more organizations are focused less on outsourcing for cost savings than in previous years and more on using providers' global delivery models to access the right skills at a reasonable price, wherever they are."

So what should SMEs do to avoid these pitfalls? As Potter explains, it's difficult to say. For smaller enterprises, outsourcing may not be the best solution. In fact, some believe that finding alternative cost-savings techniques could actually prove to be more valuable over the long-term, as overseas wages continue to rise and some companies move customer service jobs back to the United States.

But for the vast majority of companies, outsourcing is still a viable option that needs to be managed as the company employs it.

Managing Your Existing Relationships

Once a company has established an outsourcing or multisourcing plan, one of the most important facets to consider is management. After all, once the enterprise has found an outsourcing service to partner with, quite a few tasks should be performed on a regular basis to ensure that its attempt at cost savings is truly working.

As one industry expert from outsourcing specialist EDS notes, "Due diligence should be performed on a regular basis to eliminate as many assumptions as possible." For example, companies should be prepared to create periodic cost-benefit analyses to judge how well the outsourcing is actually increasing the bottom line.

Beyond that, one best practice for companies revolves around a benchmarking system, according to EDS. At the onset of the contract between the company and its outsourcing firm, the quality of the relationship and its overall cost savings should be used as a baseline going forward. From then on, companies should monitor a number of core competencies, such as communication, services-to-pricing metrics, and a variety of others, to see just how well that relationship with the outsourcing firm is really going.

Perhaps most important, EDS suggests that a solid governance plan be set into action that should be monitored and changed as necessary during the process. From the beginning, all parties involved (from managers through outsourcing service providers) need a solid understanding of what is expected of them in terms of responsibilities during the process and what sort of practices should be followed if issues arise. Governance should be stringent enough to avoid confusion but flexible enough to allow decision-makers to perform their assigned tasks without the need for input from authority.

Finally, EDS notes, companies should endeavor to create the most advantageous relationship possible. Ideally, this could come in the form of periodic buyer/supplier reviews where the company sits down with the outsourcing firm and reviews its performance and ability to meet expectations and vice versa. Not only does this help build a more solid relationship between the two companies, but it creates an open line of communication that quickly becomes one of the most important elements of any such relationship.

Outsourcing has quickly become one of the most popular components to any organization. But once the company has set its sights on such an arrangement, the real work begins. And it's for that reason that managing outsourcing should be a constant consideration for any company. P

Three Quick Tips

If your company is setting its sights on outsourcing, there are at least three things you should know before embarking on such a plan, according to Dean Davison, vice president of research for neoIT (www.neoit.com).

1. Define specific business requirements before speaking to service providers.
2. Focus on business requirements and let the provider worry about the technology solutions.
3. Manage the provider's outputs/results rather than activities.

Client Software November 16, 2007

Instantly Search Terabytes

dtSearch Can Scan Terabytes Of Data In A Variety Of Formats

Today's enterprises are filled with vast amounts of data in a variety of formats in seemingly endless numbers of locations. Finding the information you need can be daunting, which is where programs such as those from dtSearch can be essential.

dtSearch can instantly search terabytes of text because it builds a search index that stores the location of words in documents. Indexing is easy: Simply select folders or entire drives to index and dtSearch does the rest. dtSearch automatically recognizes and supports all popular file formats and never alters original files.

dtSearch can also create (and search with a single request) an unlimited number of indexes. Since you may want to search files that dtSearch has not indexed, dtSearch also does unindexed, as well as "combination," searching.

All dtSearch products can index more than a terabyte of text in a single index and create and search an unlimited number of indexes. Search time is typically less than a second, even across terabytes of data.

Along with the terabyte indexer, all dtSearch products include more than two dozen indexed, unindexed, full-text, and fielded data search options; support for hundreds of international languages; display of Web-ready content with highlighted hits and all images, links, and formatting intact; built-in HTML converters for hit-highlighted display of other popular file types; and distributed or federated search options, with display of local and remote content.

The dtSearch product line also embeds the dtSearch Spider, providing support for public sites, secure content HTTPS, password-accessible sites, and forms-based authentication; searching of static and dynamic content; and relevancy-ranking of spidered and non-spidered content.

The dtSearch Engine lets C++, Java and .NET developers add dtSearch terabyte indexer and file format support to Web-based and other applications.

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Make The Best Use Of New Storage Technologies

Taking Advantage Of Competitive Options

by David Geer

• • •

Until recently, some of the best new storage solutions were out of an SME's reach, at least financially, if not also from a management perspective. Now, ILM (information lifecycle management), SAN (storage-area network), and other solutions are on the menu thanks to bigger, better, and cheaper drives; smarter RAID; great software that comes with the package; ease of management; and more.

ILM

SMEs can make the best use of ILM by investing in SATA storage, according to Harry Montanye, senior storage engineer at Condre Storage (www.condrestorage.com). It's a lot less expensive than a Fibre Channel or SCSI drive and offers more than three times the storage capacity (1TB each, compared with 300GB per drive for the traditional technologies), Montanye explains.

RAID 6 technology supports SATA-based RAID arrays. With RAID 6, the data center will still be able to access its data even if two SATA drives fail. This is why the industry commercialized RAID 6. "98% of all RAID arrays are SATA," says Montanye.

The SATA drives are so popular that there's a growing trend toward replacing primary storage with SATA once existing drives wear out.

While early SATA drives weren't designed with primary storage in mind, the industry has caught on to their popularity and preferred uses and is building them to meet heavy-duty specifications close to those of the SCSI and Fibre Channel hardware, according to Montanye.

"Higher-capacity SATAs also use less rack space," says Montanye. This helps save on power and cooling costs, as well.

SMEs can also maximize their RAID arrays by combining SAS drives with SATA drives in the same arrays. The SAS drives are faster and more reliable, and SMEs can mix them with SATA drives within the same RAID enclosure, according to Montanye.

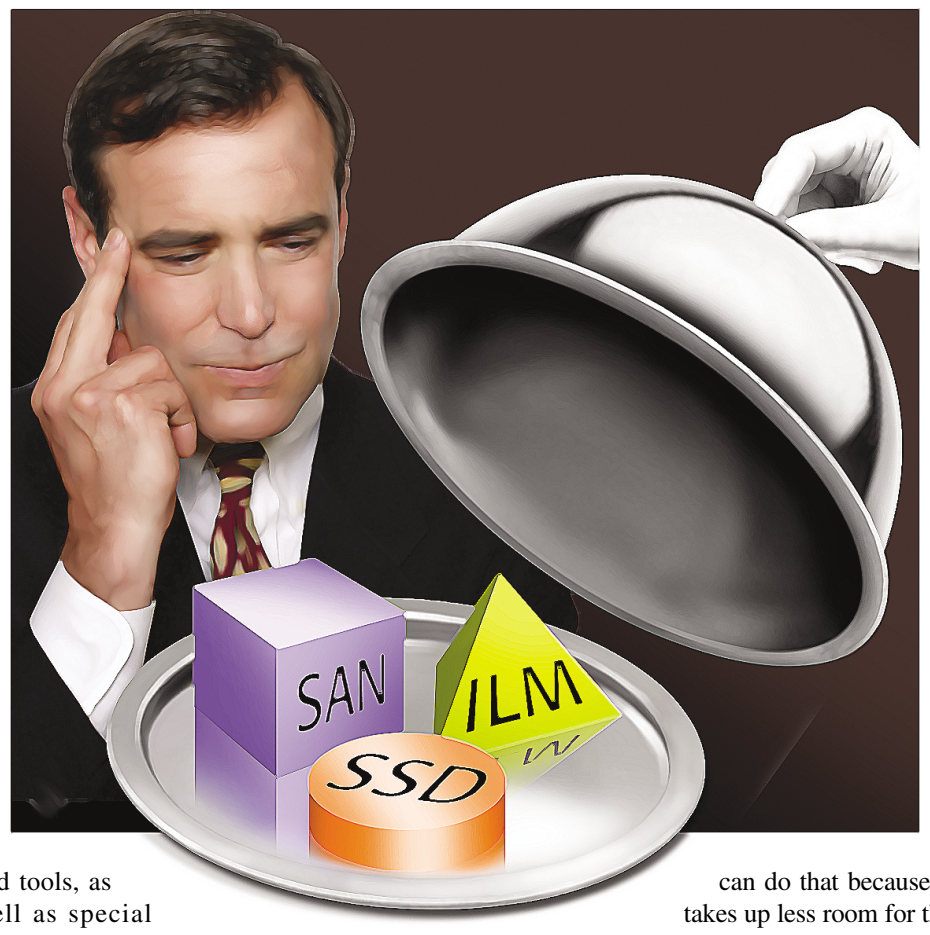
SAN

SANs have evolved for the better, according to Montanye, and to an SME's advantage. "Two years ago, a Fibre Channel SAN was the only real option, and that was very expensive," says Montanye. The hardware was expensive and so were people knowledgeable enough to implement and manage it, he explains.

Today, both iSCSI and NAS (network-attached storage) are available and affordable, bringing SANs within reach of SME budgets. "SANs are much easier to implement now, especially with iSCSI," says Montanye.

SMEs can get software free or cheap for Windows, Linux, or Mac that will turn any Ethernet port into an iSCSI initiator, so they can build out inexpensive SANs from existing Ethernet. (Sample products include RocketDivision's StarPort [www.rocketdivision.com] and Adaptec's iSCSI Initiator Software [www.adaptec.com].) "Almost every company has an internal IT staff member with Ethernet training, so there is no need for special training," Montanye says.

According to Andrew Reichman, an analyst at Forrester Research, using iSCSI for SAN instead of Fibre Channel cuts operational costs; Fibre Channel requires separate switches, management protocols, and tools, as well as special staffing. SANs built using iSCSI don't.



By using technologies that come with iSCSI, such as "teaming" or "aggregating," SMEs can see the same advantages that make the more expensive Fibre Channel so appealing, according to Montanye. Aggregating or teaming makes many ports look to the SAN as if they were one port, which means SMEs can combine them to increase bandwidth to an iSCSI SAN, making SAN performance as good as if it were Fibre Channel.

NAS is another good SAN storage solution, according to Reichman. SMEs can use NAS to build out SANs cheaply while consolidating storage. The amounts of file data in the enterprise are growing at a higher rate; making room for extra file storage makes sense right now, explains Reichman. NAS can do that because it takes up less room for the same storage. (NAS hardware is simply hard drives with IP addresses and little or no extra hardware.)

Solid-State Disks

Solid-state disks, aka SSDs, are the fastest disks out there. SMEs can best use SSDs in environments where application performance needs are so high that HDD (hard disk drive) technology becomes a bottleneck, according to Steve Swenson, product strategy and innovation manager of flash and SSD at Imation (www.imation.com), which has partnered with Mtron to distribute its SSDs.

A range of Web servers processing ecommerce is a good example of a high application performance need, according to Swenson. "By using SSDs, the company can lower its total cost of ownership (TCO) because the speed of each transaction is much faster," says Swenson.

SSDs offer other savings through lower heat generation and shock and vibration tolerance because they don't have any moving parts, according to Swenson.

Three Quick Tips

By following these quick tips, SMEs can prepare for, select, and apply the best new storage technologies for their needs.

1. SMEs should look closely at the management systems that come with storage technologies, according to Andrew Reichman, an analyst at Forrester Research. "More systems are coming with advanced UIs (user interfaces) that make it easy to move and manage data," says Reichman. EqualLogic's PS Series iSCSI SANs (www.equallogic.com), which come with Peer Deployment, Peer Control, Peer Provisioning, Peer Protection, and Peer Integration software, are one example, according to Reichman. Compellent's Storage Center Software (www.compellent.com), which comes with the company's Storage Center family of storage arrays, is another.

2. SMEs can best use data deduplication technology for backup and replication, backing up data from many user instances to a single backup copy. This greatly increases an SME's backup capacity for the same backup jobs because it won't have to make more than one copy of any software that is the same for all users, according to Harry Montanye, senior storage engineer at Condre Storage (www.condrestorage.com).

   Don't expect to find deduping software everywhere. "It's not included in the regular backup technology. It's in the VTLs (virtual tape libraries) or in arrays that are used for disk space backup," says Reichman.

3. Starting with a good understanding of their applications, SMEs should narrow their choices to only those storage technologies that will meet their needs for about three years, according to Reichman. They can then make the necessary selections from among those technologies.

Physical Infrastructure November 30, 2007

Keep Your Data Center Cool & Dry

Rely On AVTECH's Room Alert 11E Environmental Monitor

Environment conditions in today's data centers are a major concern. Power outages, air conditioning failures, or blocked ventilation can cause temperatures to rise above 85 degrees in minutes, potentially damaging equipment and putting data at risk.

AVTECH Software's Room Alert 11E is a powerful, inexpensive, easy-to-use way to combat potential environmental problems.

Room Alert 11E monitors rooms of nearly any size. And since Room Alert 11E is connected via Ethernet and does not require a host PC for operation, it can monitor virtually anywhere.

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Product Releases

Clients

■ **EnterpriseDB** has released EnterpriseDB Advanced Server 8.2 for Mac OS X. The company says the enterprise-class RDBMS (relational database management system) runs various applications written for Oracle without changes while also providing the scalability, reliability, and performance necessary for mission-critical applications.

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■ **Fujitsu Computer Systems** upgraded the LifeBook P1620 convertible notebook with an Intel Core 2 Duo processor and Fujitsu Portshutter data leak prevention software. Fujitsu Portshutter software can restrict access to I/O ports and USB devices; it helps prevent confidential information from being copied to removable devices and can temporarily restrict the use of ports when the computer is left unattended. For added security, the P1620 has a built-in biometric fingerprint sensor, Trusted Platform Module, and BIOS support for Absolute Software's Computrace computer theft recovery, data protection, and secure asset tracking software. Fujitsu also enhanced the 8.9-inch touchscreen display to make it easier to read in normal working conditions: It is now brighter, has a higher contrast ratio, and offers better viewing angles in all four directions. Finally, the Fujitsu Shock Sensor utility, an accelerometer-based hard drive protection system, retracts the hard drive head if a sudden movement or vibration is detected. This sensor can also be set to password-lock the system if it is touched, preventing the unauthorized access of data.

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■ **Glacier Computer** introduced the Ridgeline Tablet, a portable and rugged tablet computer capable of withstanding water and humidity extremes at virtually any temperature. Running on Windows XP, the tablet has a 10.4-inch display with daylight-readable functionality options and a touchscreen interface that workers can use to retrieve and send information. The tablet was designed and tested to withstand repeated drops to concrete from a distance of 3 feet. Each unit comes with integrated 802.11a/b/g, Bluetooth, a GPS module, and many hard drive options.

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■ **Lexmark** introduced the Lexmark X560n color laser MFP, designed to print at speeds up to 31ppm in black-and-white and 20ppm in color. It also has copy, fax, and scan capabilities, as well as a 50-sheet automatic document feeder designed to improve productivity. The Lexmark X560n also includes software to help customers scan, share, and organize documents. Customers can use the software to convert scanned documents to PDF format or transfer a document's contents into a spreadsheet or word processing file using Optical Character Recognition.

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■ **Psion Teklogix** introduced its family of PTX Print Mobile printers, including the PTX Print PRINTABOUT, PTX Print MLP 3030, and PTX Print MLP 3040. The durable PTX printers are best suited to warehouse labels, field service documents, receipts, healthcare labeling, and parking citation printing applications. The rugged PRINTABOUT (PTX-MP-2000) is a small thermal printer that has optional Bluetooth and Wi-Fi capabilities. The 3-inch PTX Print MLP 3030 and the 4-inch PTX Print MLP 3040 are compact printers capable of handling graphics-rich label and receipt printing. These two printers each offer wireless capabilities and are rated for resistance to water, dust, and drops. Thanks to a partnership with Printek, Psion Teklogix's mobile printers are interoperable with Printek's devices and customers' existing printers.

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■ **Ricoh's** HotSpot line of business-class, small-footprint laser printers offers network printing functionality for stationary workers, as well as for users on the go, so you can print attachments and email from your BlackBerry, cell, or other mobile device. Mobile users can print via upload to the unit's unique Web page or simply send an email to the printer's address. Encryption and a secure release feature keep sensitive documents from falling into the wrong hands. There's a color model (SP C410DN-KP) and a monochromatic unit (SP 4100N-KP).

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■ **SoftInform Technologies** released a version of SearchInform, software that lets you use full-text searches to find files on the corporate network. This version of SearchInform features the ability to incorporate entire documents—in the original format—directly to the searchable index, and it allows viewers to display documents in the original format. It offers a more user-friendly interface and features an API with features such as retrieval of server version and advanced text-to-words itemization. SearchInform comes with tools for phrase search, morphology analysis, and synonym dictionary tuning. The search tool supports more than 60 common file formats, including Outlook, MP3, .AVI tags, and IM history logs.

Messaging & Telephony

■ **Avaya** has announced Avaya Communication Manager 5.0, Avaya Call Center 5.0, Avaya Agent Deskphone 16CC, and Avaya Interactive Voice and Video Response—all products designed to improve customer service in contact centers. They include end-to-end SIP functions so that a company can take advantage of open environments to provide multimedia communications. Avaya's SIP contact center phone can function without any CTI middleware, like a softphone. Avaya provides contact center features, including work mode display and alert tones for skill changes.

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■ **Kroll Ontrack** released the latest version of its mailbox recovery tool, Ontrack PowerControls 5.0. The software performs recoveries from Microsoft Exchange Server backups and also handles email searches. It generates search result reports and exports EDB stores and individual mailboxes to PST files. It is also capable of designating the Exchange Server as a target for copying, exporting, moving, or searching for items. Ontrack PowerControls 5.0 also has Administrative Services that let administrators match PowerControls to the company's internal policies. The Extract wizard lets administrators track user activity and creates an audit log of tasks performed. Ontrack PowerControls 5.0 installs without requiring any changes to the existing Exchange server and supports WinXP and Microsoft Exchange Server 5.5, 2000, 2003, and 2007.

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■ **Mirapoint** announced the Message Server S6000 email appliance and the RazorGate 6000 email security appliance. The MiraPoint Message Server S6000 allows for N+1 redundancy across the entire fabric for support of mission-critical messaging, and when combined with Mirapoint's Geographic Mirroring architecture, you can replicate

Go to Page 16

Physical Infrastructure

October 26, 2007

A Master Enterprise View

New ATEN KVM Bundle Provides Perfect Features For Monitoring & Maintaining Servers & PCs

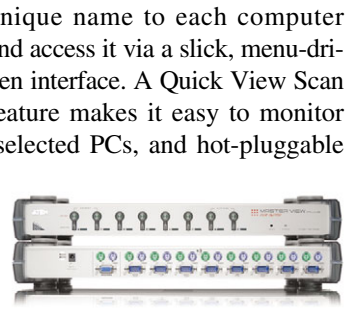
Today's data centers require convenient, space-saving, streamlined KVM equipment. ATEN's 17" Single-Rail LCD Integrated Console and MasterView KVM bundle is designed with those needs in mind.

ATEN's economy LCD KVM console, CL1000M, integrates a keyboard, 17-inch LCD, and touchpad in a 1U Slideaway housing. Setup is fast and easy. There is no software to configure, no installation routines, and no incompatibility problems. Slide the console module section out and flip up the cover, and you are ready to work. When finished, flip down the cover and slide the console module back into the rack.

By using the CL1000M to manage your installation, you save space; eliminate the expense of having to purchase a separate keyboard, monitor, and mouse for each PC if attaching to a KVM switch; and can take advantage of upgrading your current system

ATEN is now bundling the CL1000M with an eight-port MasterView Plus, which helps reduce the need for redundant hardware. With the MasterView Plus, you can control up to 512 computers with a single keyboard, monitor, and mouse. And it requires no software.

MasterView Plus is more than a simple eight-port KVM switch. A built-in Auto-Scan mode lets you monitor every attached computer for a specified amount of time, while the on-screen display lets you assign a unique name to each computer and access it via a slick, menu-driven interface. A Quick View Scan feature makes it easy to monitor selected PCs, and hot-pluggable capabilities mean you can add or remove PCs for maintenance without powering down the switch. The MasterView's 1U, 19-inch rack-mountable casing and status-monitoring LEDs make it ideal for server rooms or other multicomputer environments.



ATEN 17" LCD Integrated Console & MasterView KVM (model CLCS9138MKIT)

Includes an eight-port KVM switch and a KVM console with a keyboard, 17-inch LCD, and touchpad

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PHYSICAL INFRASTRUCTURE

JANUARY 18, 2008

CPS Automatic Power Cycle Keeps Equipment Online

New Device Automatically Power Cycles Frozen Devices

WHEN IT COMES TO appliances that control network traffic, ordinary monitoring tools aren't enough. Sure, the monitoring system alerts you to traffic disruptions, but the entire network remains down until you're able to reach the frozen router or modem and restart the power cycle. To speed up the process, CPS (Computer Peripheral Systems) offers the APC (Automatic Power Cycle) appliance, which monitors network status and automatically restarts power to a frozen device, making the hung router a minor annoyance instead of a major downtime problem.

CPS built the APC unit with DHCP routers and modems in mind for plug and play applications, but customers can use the device to cycle power for any critical network component. The APC unit sits between the AC outlet and the selected devices, such as a router or modem. It regularly pings two IP addresses to confirm that the network's Internet connection is functioning. When the APC unit determines that a device has frozen (due to ping failure for both IP addresses), it automatically recycles power to its AC OUT outlet for five seconds.

Customers can configure multiple APC unit features by connecting the device to a PC (via a RS-232 serial adapter). The PC must run a terminal emulation program, such as Hyper Terminal or ProComm. You can change the primary and secondary ping addresses, enable or disable ping-out capabilities, change the ping interval from its 2-minute default setting, or extend the power-off countdown from the default five seconds up to 90 seconds and more.

The APC unit also supports out of band backup with its Ring Reboot feature. Customers can ring the APC device over a DSL or phone line to initiate a power reset. The APC device resets after six rings by default, but customers can change the ring number via the unit's serial connection.

The APC appliance is small and light. It has two AC receptacles (one IN, one OUT), one RJ-45 port, and three RJ-11 ports. The device also sports a Power/Reset button and a rocker for the 15-Amp circuit breaker, as well as status LEDs. The device supports 110VAC to 240VAC power inputs.

CPS Automatic Power Cycle

$179

Resets AC power to hung DSL routers, modems, and other devices

(800) 888-0051

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CPS Computer Peripheral Systems, Inc.

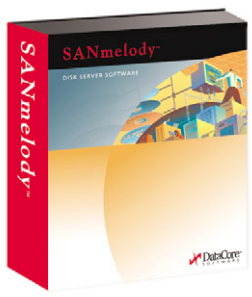
STORAGE

JANUARY 25, 2008

Optimal Storage Support

DataCore Unveils VM Starter SAN Bundle For Upgraded Portability

MODERN ENTERPRISES OF all sizes are seeing an increasing need for storage virtualization as they continue to expand to virtual environments. DataCore's release of the feature-loaded, readily accessible VM Starter SAN package offers newly enhanced data management capabilities for SMEs. This cost-effective SAN provides simplicity for any VM (virtual machine) yet runs efficiently on physical hardware.



Storage networking is now more convenient with the iSCSI-enabled VM Starter SAN package, capable of asynchronous IP mirroring and virtual disk emulation. The portability of the VM Starter SAN highlights its functional consolidation of virtual storage: The single server bundles allow for mobile protection of multiple VM environments.

The integrated SANmelody features make data migration (via SANmotion) an easy delivery task for the user due to real-time repurposing. Old information can be placed elsewhere in the system, while primary data is allowed to occupy disk resource space for optimal utilization. Disk backup is simplified through the high-speed snapshot feature in which consolidated volumes are copied at one location rather than from multiple points.

DataCore's remote site recovery feature allows for maximum enterprise support through dual bundle operation. The simplified bundles demonstrate the advantages of high-performance mobile VM SANs. For integrated systems relying on the portable Starter SAN, DataCore recommends that businesses use two bundles in order to provide moment-to-moment location continuity. One SANmelody package remains onsite, while a second occupies the remote location. The Starter SAN can also function effectively as a single system and provide equally operative storage recovery.

DataCore's VM Starter SAN supports all major virtual machine vendors, such as Citrix, Oracle, Sun, VMware, and Microsoft. Additionally, the Starter SAN can run on Linux, Mac OS, and Netware, as well as Microsoft and Unix.

According to DataCore, the VM Starter SAN is cost-effective because it fills the spot in the market between smaller data protection systems and large-scale, high-priced platforms. It can provide broad system security, so the internal stability of your business won't be jeopardized.

DataCore VM Starter SAN

About $4,000 per SAN server

Portable SAN bundle featuring auto-allocating storage support, enhanced data migration, and remote site disaster backup

(877) 780-5111

www.datacore.com

DataCore™ SOFTWARE

Product Releases

Continued from Page 15

the email system in a different region. The S6000 features dual quad-core Intel Xeon processors and Mirapoint's MOS operating system. The MiraPoint RazorGate 6000 features multiple scanning engines for virus and spam defense, and the security appliance provides real-time updates to display the current network status. Additionally, the RazorGate 6000 includes support for SPF (Sender Policy Framework), a Junk Mail Manager, and RBL support for additional layers of protection.

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■ **Sunbelt Software** announced the Ninja Blade email security appliance designed to allow organizations to build secure, scalable messaging infrastructure. Ninja Blade provides inbound and outbound protection from spam, viruses, and other malicious attachments. The platform also gives administrators the ability to add disclaimers and rules to inbound or outbound emails, providing users with organization that provides efficiency and security. Ninja Blade uses the Cloudmark antispam engine to provide spam and phishing detection and protection. Ninja Blade's Web-based interface allows administrators to install, configure, and manage their systems' email security from any Web browser, as well as provide access to flexible reports including information on the level of the system, component, or individual user.

NETWORKING & VPN

■ **Ensim** has released Unify Enterprise Edition 1.5, a system management application that offers functionality to enterprises needing to optimize their IT infrastructures, increase security and control of Exchange deployments, and enable a mobile workforce. The release is available for Active Directory, Microsoft Exchange, and mobile applications and includes a template-driven management interface to automate tasks and delegate administration to employees. Key features include a Quick-Start wizard for performing post-installation tasks; enhanced user management abilities, such as locking down user templates, managing user attributes, moving user accounts among OU locations, and customizing a list of user attributes that Unify manages; a Web-based user interface to customize and manage administrative rights; and more.

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■ **IBM** has unveiled TPM (Tivoli Provisioning Manager) 5.1.1 to benefit clients who use cloud computing to operate more efficiently. Corporate information centers can now function with few manual steps and work toward automating IT resources. IBM's cloud computing, titled Blue Cloud, assists clients interested in expanding data centers on a global scale; TPM is a vital component in IBM's effort to increase data automation while minimizing manual tasks. TPM 5.1.1 provides IT environment support, as well as resource monitoring and management of virtual servers and network components. Specifically, TPM features Web Replay for recording of shared knowledge, Cross-Platform Patch Support, the integration of Tivoli Application Dependency Discovery Manager, Dynamic Content Delivery, and Streamlined Installation.

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■ **Packeteer** launched the Talon TC30 modular appliance, an application performance monitoring and management platform designed to work with Packeteer's Packet-Shaper 10000 product. The Talon TC30 uses Packeteer's high-speed product architecture to offer speeds of up to 6Gbps of aggregate throughput, making it capable of high-performance Layer 7 Plus application discovery, performance reporting, bandwidth partitioning, and policy enforcement for up to three simultaneous Ethernet segments on a WAN link. The Talon TC30 lets network administrators view and manage traffic running across OC-12 to OC-48 Internet and core networks and details which applications are running and how those applications are performing.

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■ **SolarWinds** introduced ipMonitor v9.0, a network, server, and application monitoring system suited for businesses with fewer than 500 managed devices. The latest version of ipMonitor includes SmartMonitor technology, a new Web interface and graphic-based dashboard, network mapping capabilities, and user experience monitoring. Additionally, ipMonitor v9.0 screens applications such as Microsoft Exchange, Active Directory, and SQL server and allows logical and dynamic grouping of tools to manage organization and control. ipMonitor v9.0 also offers reduced downtime with automatic recovery and remediation.

PHYSICAL INFRASTRUCTURE

■ **Chatsworth** has released a new LCD/KVM Console available in 1-, 8-, or 16-port KVM versions. The console provides access to multiple computers via one set of rackmount peripherals and is available in 15-, 17-, or 19-inch LCDs with up to a 1,280 x 1,024 resolution. The 19-inch EIA version includes an LCD panel, keyboard, and integrated touchpad in a 1U-sized unit. Chatsworth says built-in dual slides let the LCD and keyboard tray open independently and let the LCD panel fold up. A keyed lock lets users close the console when in storage. Additional features include password-protected access to the on-screen display menu, a single cable connection (VGA-to-VGA/PS2 or VGA-to-VGA/USB) to systems; support for DOS, Windows, HP Unix, Linux, Novell 3.12-6, and Sun OSes; search for computers by name or hotkey controls; and more.

Chatsworth has also released CPI Evolution Cable Management for high-density cabling applications. This product provides cabling for Chatsworth's open two-post and four-post rack systems and is designed to match the CPI TeraFrame Cabinet Family. The Evolution vertical managers are available in three widths of single- and double-sided products. The double-sided vertical managers have movable midsections (40/60, 50/50, or 60/40 front/rear split).

Finally, Chatsworth has announced the ARQR (Adjustable Rail QuadraRack) and ARSR (Adjustable Rail ServerRack), which have adjustable-depth, rear-mounting rails; RMU-marked front-mounting rails; and special cable management, grounding, and bonding features. Both new products offer a fixed-depth, four-post frame with adjustable rails. These rear-mounting rails can extend from 15 inches up to the size of the entire rack, plus an extra 6 inches beyond the back of the frame to accommodate equipment that is deeper than the rack.

SECURITY

■ **Lockdown Networks** has announced a Lockdown Enforcer 4.6 upgrade, which offers enhanced major installations for organizations with improvements to remediation and enterprise management. Through the newly simplified setup process, users and devices can access flexible self-registration. Lockdown Networks' improved assessment engine offers more test support, while the updated auto-remediation solves standard compliance issues autonomously. Large-scale deployments will receive a boost in efficiency with the high-performance 2U platform. The Enforcer also features streamlined setup

Product Releases

and secure user capabilities for increasingly stable control of network access.

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■ **Novell** released the newest iteration of its ZENworks ESM (Endpoint Security Management) platform, a policy-based security offering that lets users manage endpoint ports and devices to secure corporate data. ZENworks ESM's features include language support for English, French, German, Italian, Portuguese, Spanish, Chinese, and Japanese users. Other enhancements include improved encryption for personal data management, removable storage, and whitelisted devices. The offering also delivers better security for fixed disks and expanded USB control for nonstorage peripheral devices, such as mice and printers. Another new feature helps protect lost or stolen mobile devices by requesting an additional password to prove user identity.

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■ **RedSeal Security Risk Manager** is now available in version 2.1. It's intended to give the enterprise a proactive heads-up on the security risks of wireless networks. New features include VPN and network modeling, a visual guide to all network access paths, security change tracking and analysis, and risk assessment for load-balanced servers.

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■ **Secure Computing** released SafeWord 2008, a two-factor authentication virtual security component that protects access to critical assets and applications. Updates in SafeWord 2008 include support for 64-bit Windows environments, including Vista and Windows 2008 Server, and integration to Microsoft Active Directory. SafeWord 2008 allows you to require a positive proof of identity before enabling access to the network, and the virtual security component comes with the licenses, tokens, and the first year of support. Customers can also purchase SafeWord 2008 with the Enterprise Solution Pack, which includes an add-on module with the SecureWire Access Gateway and other applications to improve productivity, security, and compliance. Additionally, the Enterprise Solution Pack gives customers the option of applying MobilePass to use mobile devices for two-factor authentication.

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■ **Sunbelt** announced an upgrade to its antispam software, iHateSpam. The newest version, iHateSpam 5.0, incorporates an entirely new antispam engine that provides comprehensive antispam and antiphishing protection for Microsoft Outlook, as well as other upgraded features such as interface enhancement. iHateSpam 5.0 integrates real-time spam and firewall protection features into the Outlook email client to provide users with a filter that allows legitimate messages to pass through. The antispam software is compatible with Windows 2000/XP/Vista and Outlook 2000, 2003, and 2007.

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■ **VIA Technologies** has introduced the VIA NAB 7500 embedded board, an integrated network appliance board for network protection or gateway applications, including firewall, VPN, UTM, antivirus, and IPS (intrusion prevention system) products. The VIA NAB 7500 includes five Gigabit Ethernet ports (four of which use PCI Express) supporting LAN Bypass, a USB WLAN interface, four SATA ports for data recording or signature, serial ports for console redirection, and an LCM power utility. The VIA NAB 7500 also includes features for enhanced dependability and protection, such as a TPM module for hardware-based data security. The VIA NAB 7500 operates with a low-heat, energy-efficient VIA C7 processor.

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■ **Voltage Security** has announced Voltage SecureFile for IBM Lotus Quickr, a new software package for securing files. Features of SecureFile include secure information workflows, brand reputation protection, risk mitigation of possible data breaches, and regulation compliance. The software is designed to offer ease of use for both administrators and end users, protect files even outside the Lotus Quickr environment, and encrypt documents of any type.

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■ **Webroot** has released a software security service called Webroot E-Mail Security SaaS (software as a service) aimed at small to medium-sized enterprises that want to improve perimeter security. The software requires no additional hardware or software, as it lives outside of a business' network. Features of Webroot E-Mail Security SaaS include dynamic virus and spam filters, content filtering and data archiving, and high service availability.

Servers

■ **Dell** has released the PowerEdge M-Series line of blade servers. Designed for energy efficiency using Dell Energy Smart technology, the blades are intended to be more efficient yet consume less energy than their competitors. Other features of the blades include snap-in scalability and an environmentally friendly lead-free design. The series is designed for simple management, flexibility, and virtualization. The PowerEdge M1000e is designed for up to 16 PowerEdge M600 and M605 blades.

Storage

■ **PlateSpin** has announced the North American release of its new virtualized recovery hardware, PlateSpin Forge. PlateSpin's "Plug In and Protect" product offers rapid data recovery and disaster protection founded on VM infrastructure. Any individual PlateSpin Forge can support up to a 25-server workload, virtual or physical. This virtual package is easily portable yet provides the proper storage and recovery applications for consolidated hardware utilization. As a recovery appliance, the Forge boasts newly reduced deployment and configuration time for recovery solutions. According to PlateSpin, the Forge also provides replication software and workload security for ready-made transport. PlateSpin founder and CEO Stephen Pollack says, "With Plate-Spin Forge, the world's first virtualized recovery hardware appliance, we are once again transforming the data center by making it easier and more affordable to implement, test, and manage a virtual recovery infrastructure."

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■ **Supermicro** has unveiled the SC936 series, its latest series of high-density 3U SAS storage chassis. This series will support 16 hot-swappable 3.5-inch SAS/SATA drives and includes features such as high-efficiency (88%) 900-watt (1+1) redundant power supplies and a 100% redundant cooling design. If a fan fails, the design of the SC936 series will maintain its processes without compromising performance. The design also protects the SES-2 enclosure management and the iPass cables, which reduce the number of internal cables and improves system airflow, cooling, and reliability.

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■ The new LTO-4 HH tape drive from **Quantum** offers the same performance as the company's full-height drive in a half-height package. It uses a SAS interface and is backward-compatible with LTO-3 (read/write) and LTO-2 (read-only). The drive can reach transfer speeds of up to 432GB per hour and offers up to 800GB native storage space. Native support for AES 256-bit encryption and WORM cartridges shows that the LTO-4 HH has security in mind.

PHYSICAL INFRASTRUCTURE

RPC 22

24 Receptacle Remote Power Monitoring & Distribution

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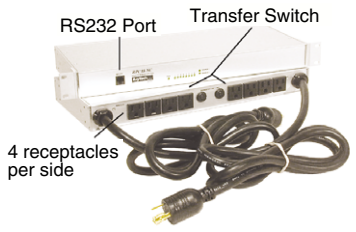
PHYSICAL INFRASTRUCTURE



RPC18

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PHYSICAL INFRASTRUCTURE

RPC 14

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- RS232 interface, 120/208VAC 10,20,30A Models
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PHYSICAL INFRASTRUCTURE

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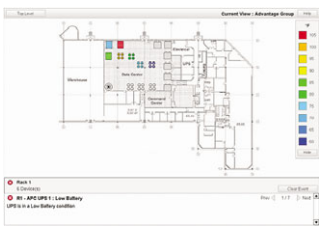

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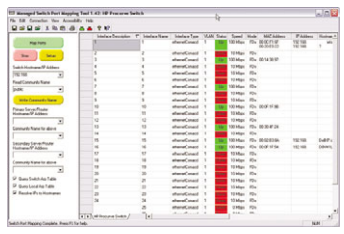

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BOOK REVIEW

"Geekonomics" Reveals True Costs

Weaknesses & Vulnerabilities In Insecure Software Can Cause Widespread Problems

by Kurt Marko

• • •

If you've ever wondered why the first thing you have to do upon booting a new PC, with its pristine copy of Microsoft's latest and greatest, is spend the next few hours loading extraneous security software, David Rice has a theory for you. As he expounds in his book "Geekonomics: The Real Cost of Insecure Software," our methods of developing software are crude and error-prone, with the industry valuing speed and features over quality and security.

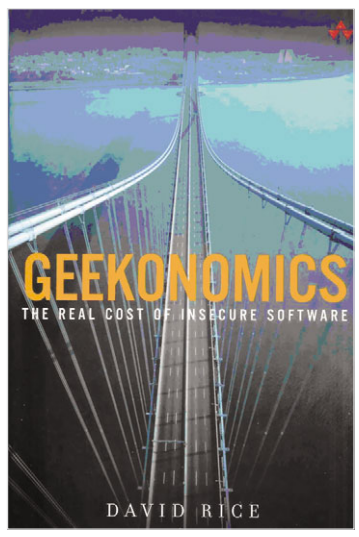
While the book's subtitle, "The Real Cost of Insecure Software," suggests an emphasis on software security holes that regularly make news, the vista of poor software quality Rice describes extends far beyond incidents involving hackers and identity thieves. Whereas many software flaws are merely an inconvenience, some of Rice's most egregious examples are tragic, such as the time software controlling an X-ray machine designed to treat cancerous tumors malfunctioned and, lacking hardware failsafes used on prior models, delivered massive doses of radiation that killed six patients.

Major Themes

Rice begins his work by outlining the myriad ways sophisticated programming code is pervading almost every aspect of modern life. From mobile phones to airliners, it "cuts across almost every aspect of global, national, social, and economic function," he says. Yet unlike materials such as cement or steel that form the foundations of our physical infrastructure, software is infested with design and implementation defects that Rice contends are easily preventable.

The reasons for software's poor quality are legion. Rice decries the industry's incentives that reward speed and functionality over reliability and security. Aggravating the problem is a software sales model that Rice describes as shifting responsibility for product maintenance and upkeep to end users away from manufacturers and that relies upon a licensing model, enabling vendors to dictate favorable terms of purchase.

Rice cites a legal framework that doesn't hold manufacturers responsible for software defects or resulting damages as supporting this lack of accountability. Finally, Rice laments the lack of rigorous software engineering standards and practitioner licensing. This litany of problems leads to a sense of despair and distrust on behalf of users, sustaining low expectations of software quality.



Geekonomics: The Real Cost of Insecure Software

Author: David Rice

Publisher: Addison-Wesley Professional

Price: $29.99

Format: Hardcover, 362 pages

Hope In The End

The majority of the book is dedicated to explicating the structural problems that create a "fast and loose" environment for software production; however, Rice concludes with a faint bit of optimism by offering some potential solutions. He recounts each of the major problem areas and suggests ways of filling gaps in the current state of affairs.

For example, to address a legal system that allows software vendors to escape responsibility for errors or security holes in their products, Rice suggests legislation or class-action lawsuits aimed at applying legal theories of liability and negligence, just as they pertain to car or drug manufacturers. To bring a higher degree of professionalism, accountability, and standardization to workers in the software industry, he recommends states or professional bodies such as the ACM (Association for Computing Machinery) or IEEE develop licensing standards and requirements for software engineers similar to those imposed on civil engineers, doctors, or lawyers.

Despite the title, the only thing geeky about Rice's book is the object of his wrath—software. The book seldom strays into technical minutia. It's really a public policy treatise about the role of software in modern life and how our public institutions should apply policies and remedies used in other realms to that of software development, sales, and ownership. P

Key Concepts

- Software is one of the core "construction materials" of modern civilization and has crept into almost all aspects of 21st-century life.
- Despite its importance to society, software's means of production, acquisition, and maintenance are flawed, leading to unacceptable product quality, reliability, and security.
- Examples of the effects of shoddy software are legion, with the deleterious effects resulting in substantial financial, and in some cases, human costs.
- While the software ecosystem is currently broken, it's not irreparable; legal, engineering, and professional reforms are available that can bring software production up to normative standards for similar products having wide-scale societal impact.

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Security

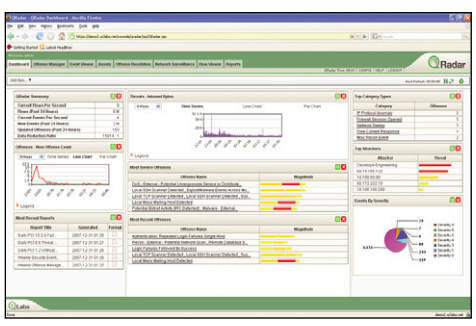
January 25, 2008

Q1 Labs Upgrades Network & Security Monitoring Platform

QRadar Offers Enhanced Visibility, Log Management & Analysis

In today's environment, network security, compliance, and event management are of paramount concern. Thankfully, the latest version of Q1 Labs' QRadar addresses those concerns in spades. QRadar is a dual Network Behavior Analysis and Security Information and Event Management platform designed for those seeking to take greater control over their network security.

QRadar delivers network insight and security monitoring capabilities from a single unified infrastructure. QRadar collects data and live network behavior information from sources such as NetFlow, all network-attached security devices, applications, and OSes. QRadar then employs security event correlation and network behavior analysis to sift through that data and produce the most pertinent set of actionable data, which network admins can use to make informed decisions at a moment's notice.



QRadar's Dashboard tab provides an at-a-glance overview of the status of the network.

QRadar displays network behavior via its flow viewer. The log management and behavior analysis architecture is ideally suited to the task of monitoring the network and alerting admins to any and all threats, users, hosts, and assets accessing the network. QRadar's unified design also lets users monitor their network and security infrastructure from a single easy-to-use interface.

QRadar new 6.1 lets users search network flow to improve network behavior analysis and security forensics results. Another new feature is the QoS monitoring capability for critical network apps such as VoIP. QRadar 6.1 also features augmented host discovery, asset-based alerting, tamper-proof logs in storage, and event and network flow data.

Q1 Labs QRadar 6.1

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Business Comes Home

Walking in endless hallways with thousands of people listening to blaring music and barkers trying to get you to sit and watch them demonstrate their products to win a yo-yo, USB drive, or some other item: It's the first month of the 2008 convention season. . . .

I have been going to the annual Consumer Electronics Show for several years now. A show like that gives you a different perspective on the use of technology compared to a typical IT conference. Everything from cameras to cell phones to DVRs to game systems to media servers—they're all there, as well as PCs and software. Every year, these gadgets require ever greater processing power, bandwidth, and storage.

The Shape Of Things To Come

With all of this technology entering our daily lives, I was wondering what the next generation of business users will expect. I have two sons who are not quite teenagers, and I have been trying to imagine what they will want when they get into the workplace in another 10 years or so. What will the IT worker have to deal with in 2018 (wow, that's only 10 years away)?

Members of the next generation of business users are now texting their friends on their cell phones to coordinate online adventure games they are playing with each other. They will probably want to have instant connections whenever they want with their business colleagues, as well. They may also want to know where their friends and colleagues are (if they are willing to share), and location-based services combined with widespread GPS technology will make this possible. They will want universal connectivity with multiple modes of connection.

They will probably use Web-based communication and interaction for much of their business, reducing their need for ever more expensive air travel. That means a lot more bandwidth available in a lot more places. While they may be able to avoid much of the travel we do today, I expect that people will be working at least as hard or harder than we do today. It seems it never gets any easier!

This will be a generation that will take high-definition video and images for granted. They will always have a high-resolution camera handy to capture a picture of an event, friend, or colleague. They will probably use these images and video for their business communications, swelling the size of their business documents and files. They might even have high-resolution projectors built into their mobile devices for sharing content with others or displaying on special glasses they wear. The development of fuel cells, wireless power, and power-saving technologies could help make far more powerful mobile devices possible.

Hopefully, we will have developed ways to index rich content so that people can find and use this material easier than it is for many of us today. This next generation of business user will want management functions such as indexing, backup, and other IT functions to be transparent and automatic. We will probably have many tiers of storage as people carry content with them, keep it at their offices, and even maintain storage on the network. Thin clients will combine with rich clients in an interesting blend of models. Storage security will have developed considerably as onboard storage encryption, advanced biometrics, and other capabilities do a better job of protecting privacy and confidential business data.

Maybe by 2018 computer devices will be much more interactive and portable. Maybe electronic paper of some sort will be in common use, and printers will consume many fewer forests. Sony and Amazon have both introduced new portable ebooks that show text on displays. Maybe users will have devices with lots of storage and processing power that can remind us of past events and people. A memory prosthetic device such as this could be very convenient. With universal connectivity, any piece of information can be available anywhere.

Brave New World

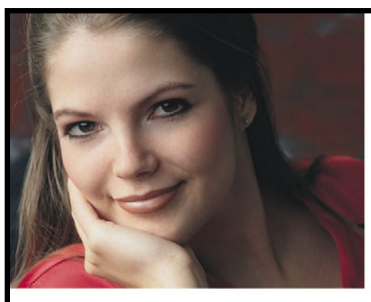
This year at CES saw a possible resolution of the next-generation HD-video disk format war, 500GB 2.5-inch disk drives (with 1.5TB 3.5-inch drives rumored in the wings), a 40GB 1.3-inch disk drive from Samsung for camcorders, as well as flash memory and solid-state drives everywhere.

Ten years from now, we could see hundreds of terabytes in larger hard drives (maybe even a petabyte) and several terabytes in portable disk drives. Flash memory devices with hundreds of gigabytes will be common, and optical disks with 1TB capacity may be available. The amazing thing is that we will use this storage capacity. We will use it because knowledge and experience gives us greater control over our lives and a greater scope for our economic sphere of influence. These experiences and this knowledge are stored on storage devices. P

Send your comments to tom@processor.com

TOM COUGHLIN

AUTHOR *Tom Coughlin is the author of numerous authoritative reports on digital storage and its applications. He is also the founder and organizer of the annual Storage Visions Conference (www.storagevisions.com) and lead consultant for Coughlin Associates, which provides digital storage technical and market analysis and consulting services. Coughlin is a frequent writer and international speaker on digital storage and storage applications. You can find out more about him at www.tomcoughlin.com.*



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PRODUCT OF THE WEEK

All-In-One Storage Appliance

StoreVault S300 Combines Low-End Price With High-End Features

by Sue Hildreth

• • •

SMALL TO MIDSIZED ENTERPRISES need more flexible and sophisticated storage options but not at high-end prices or labor requirements. This is the market niche that Network Appliance (800/206-5363; www.netapp.com) is targeting with its recently released StoreVault S300 product. With a price tag that starts at just less than $3,000, it appeals to SME buyers both on the price and on its support for both NAS and SAN networks and disaster recovery features.

The StoreVault S300 is targeted at small organizations needing a few terabytes of storage and run primarily on the Windows platform. However, large organizations in need of branch office or remote backup storage can also use it. The product aims to combine simplicity of administration, via a graphical Windows interface and StoreVault Manager with setup wizards and other tools, with more data protection options, such as "snapshots" or point-in-time backups, to supplement the nightly backup and make disaster recovery faster and more complete.

NAS & SAN Support

The StoreVault S300 supports both NAS and iSCSI-based SANs. Because iSCSI support makes it possible to have a SAN without purchasing expensive Fibre Channel equipment, it is becoming popular with SMEs.

"The basic premise is to make it easier to acquire and use [a storage product] and also make it easier to adapt to your needs," says Greg Schulz, senior analyst and founder of StorageIO, a storage technology consulting and analyst firm. He notes that an SME may not want to make an exclusive commitment to either NAS or SAN technology but wants to leave its options open. At lower-end price points, however, options are normally more limited.

"There are vendors that compete on a price basis but may not do both iSCSI SAN and NAS or do replication snapshots," Schulz says, adding that only two other companies, Dell and HP, compete directly with the S300. "The big three in this category—NetApp with StoreVault, HP with its StorageWorks All-in-One Storage Systems, and Dell with its low-end PowerVaults—all address a sweet spot in the market by providing both SAN and NAS, advanced protection features like snapshot and replication, and some amount of storage, all at a relatively low price point," says Schulz.

StoreVault is unique in that it uses NetApp storage management software rather than Microsoft's. The StoreVault S300 supports up to 4TB of data, has eight drives, and supports Windows NAS, Unix NAS, and iSCSI SAN. Like its slightly more costly sibling, the S500, the S300 supports both NAS and iSCSI-based SANs.

"Because we support unified storage—both SAN and NAS—the whole issue of whether to buy a NAS or SAN product, or when should a business move to SANs, all goes away. The product does what you need now and what you may need to do in the future," says Drew Meyer, StoreVault's product marketing manager.

Some of the more sophisticated features of the low-end S300 are:

- The StoreVault Manager, a Windows-based management utility that includes the SnapManager for Exchange tool for managing backup and recovery of Exchange databases
- The StoreVault Advanced Protection Architecture, which includes Snapshot copying of data for more frequent backups and RAID-DP for protection against dual concurrent drive failures
- StoreVault replication software copies NAS and SAN data to remote StoreVault sites for disaster recovery

The new product is also on VMware's hardware compatibility list, enabling it to support virtualization for consolidating storage hardware or reapportioning it to different applications. This can help an SME get more use out of its existing storage, reducing the need to buy more storage hardware. It's also a useful strategy for creating remote storage locations for disaster recovery, says Meyer.

"Virtualization lets you create a virtualization machine and package of files stored on StoreVault. If your computer blows up, you can simply go over the network to those files, and you have them all there," says Meyer. "You can recover an entire computer, even—operating system, applications, files, etc."

Look At The Big Picture

The bottom line, says Schulz, is that small organizations should not base their storage purchases on cost or ease of use alone. They should evaluate storage products on a similar basis as larger organizations do, by considering the features and functions that can add value and reduce risk to the organization and by looking at how well a storage product can meet potential future needs of the organization.

"You should look at what you currently need, then guess at what you'll likely grow to need, and also look beyond the dollars per terabytes to the extra functionality like snapshots and virtualization," says Schulz. "Many of the features that have been available for the rich and famous are now available, affordable, and effective for small organizations."

Schulz recommends looking at features that will save on management time down the road, such as the product's support for common applications that the customer uses. Applications that are specifically supported will tend to be easier to configure for use with the storage product.

"You should look at storage from a total cost of management, not just cost per terabyte of capacity," Schulz says. "It may cost you a couple of dollars per terabyte more, but if it can save you several dollars per terabyte in terms of labor, management, or additional software you don't have to buy, then it becomes more cost-effective." P

StoreVault™ A NetApp Division

PRODUCT OF THE WEEK

NETWORK APPLIANCE STOREVAULT S300

Description: Designed to be an all-in-one storage solution for SMEs, the unit supports up to 4TB of data storage and eight drives

Interesting fact: The StoreVault S300 supports virtualization and is on VMware's hardware compatibility list.

(800) 206-5363
www.netapp.com

StoreVault S300 Software Specifications

Operating System	Network Appliance Data ONTAP StoreVault Edition
Standard Software Features	Simultaneous NAS and SAN support, online capacity expansion, up to 255 snapshots per volume, email alerts, DNS, NDMP, FlexVol thin provisioning
Security Integration	Unix NIS, Mac NIS, Windows Active Directory, and Windows Workgroup integration
NAS Protocol Support	NFS V2/V3/V4 over UDP or TCP, NFS client authentication, Microsoft CIFS
SAN Protocol Support	iSCSI up to 64 LUNs
iSCSI Software Initiators	Microsoft initiator v2.02, VMware ESX and VMware Server, Linux Red Hat ES 11 (upgrade 4), Linux SuSE EL 9, Netware 6.5, Solaris 10
RAID Support	Global Hot Spare, RAID 4, and RAID-DP (Double Protection, a form of RAID 6 without any performance penalty)

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Using Managed Security Suites For Antivirus

An Integrated Approach To Protecting Your SME

by Joe Rudich

• • •

Providing security for a small to mid-sized enterprise isn't just a technical challenge for most managers but a problem of finding sufficient resources—people and money—to keep up with demands. "We're always being asked to do more, and yet there's never the budget for another staff person," says Steven Porter, IT director for Touchstone Behavioral Health. "Meanwhile, there's money being made in penetration, in hacks and viruses, [and] in spam, so the threats that we chase are constantly evolving."

As with many SMEs, the employees of Touchstone, a behavioral health provider specializing in at-risk children, have to use their computers in many locations, often not on the company's premises. Touchstone employees meet with their clients at schools, homes, parks, or wherever the kids are comfortable talking. So about 140 of the company's 200 endpoints are laptops, and according to Porter, a large proportion of laptops means added security risk. He estimates that 60% of security incidents on Touchstone's network came from laptops, often when they reconnected to the network after several days in the field.

Protecting these laptops—and protecting the network from malware they might have acquired—was critical to Touchstone. But with only a four-person IT staff, Touchstone could not afford a full-time network security engineer. The company also needed a safe way to store patient information and other vital records offsite, in accordance with HIPAA regulations.

Security Management Suites & Services

This is the type of situation that a security management suite or service can help. Many vendors offer security suites, and they usually include, at a minimum, antivirus scanning software but usually also include other protective tools. These may be antispyware software, spam filtering for email, firewall software for blocking attacks on PCs, or backup software. To provide the most value for SMEs, these suites should unify the tools as much as possible. One aspect of this unification is bundling the multiple PC tools into a package to simplify installation and/or deployment. Another advantage these suites offer is the ability to monitor, control, and update security software from a central point.

Security management services take this one step further, with a third-party security company providing some level of service, usually through Internet connections. These are especially valuable for organizations such as Touchstone Health, whose portable computers are often accessible only via the Internet.

"Effective security today relies on endpoint security solutions that take an integrated approach to protection and can apply that policy across a heterogeneous environment," says Richard Jacobs, chief technology officer of Sophos International (www.sophos.com). "Neither IT managers or end users have the time to become security experts, so security solutions must manage the complexity and detail of the evolving threat. IT managers need to be able to set simple policies and get clear visibility into compliance with those policies, whether users are in the office, on the road, or at home."

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How To Choose A Security Management Suite

Tom Bowers, senior security evangelist at Kaspersky Lab (www.kaspersky.com), is an advocate of security management services for SMEs. "Computers in the SMB market typically have a less structured security policy, as their main goal at this point is revenue growth," he contends. "They are less concerned with whether the screen saver is locked down as opposed to the sale next week of their product to that Fortune 1X client. In this environment, the user can add applications, and there are fewer controls on firewalls [and] antivirus software. All these factors make internal management of endpoint security an expensive challenge."

In choosing a security service, Bowers encourages business managers to consider the following factors:

- Is the protection layered? It should include desktop antivirus, server antivirus, and antivirus for email and Internet gateways.
- Are there multiple protection capabilities embedded in the solution? For example, antispam, antivirus, firewall, and user management capabilities should be included.
- Does the service have a business continuity/disaster recovery plan?
- What are the service-level agreement terms?

Remote Management Suites

The following are three of the leading options to protect computers in diverse and mobile locations.

Microsoft Windows OneCare Live
Microsoft now offers its own subscription-based security service that works via the Internet and also offers reporting on multiple PCs.
www.microsoft.com

Symantec Protection Network
Symantec is developing its security service to offer a range of security services, including data backup, as well as antivirus management, to systems deployed anywhere.
www.symantec.com

Trend Micro Worry-Free Remote Manager
Trend Micro's security service lets customers view the status of any connected system via a Web-based security dashboard, whether the workstation is local or anywhere on the Internet.
www.trendmicro.com

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PRODUCTS AT WORK

Elfiq Helps Deliver 24/7 Availability

Load Balancing Solves Uptime Challenge For Value-Added Service Provider

by Mark Brownstein

• • •

As a provider of value-added services to ISPs, Radialpoint's business hinges on offering uninterrupted services to its customers. Because the Internet never rests, neither can the availability of Radialpoint's products.

The company's client base relies on Radialpoint (www.radialpoint.com) for a variety of services, including antivirus, antispyware, and firewall, as well as fraud protection, PC optimization, and parental controls. In addition to these services, Radialpoint assists ISPs at all stages in their customer relationships, as well as with their marketing strategies.

According to Steve Johnson, system administrator at Radialpoint, the amount of traffic the company generates can result in anywhere from 2,200 to 3,500 requests per second. And Internet traffic ranges between 10Mbps and 35Mbps, he says. Clearly, with such a wide variance between the lows and highs in Internet traffic and the variation in the number of sessions per second, creating a system that could provide the same high level of performance regardless of the traffic coming through to Radialpoint was essential.

Radialpoint had been managing the performance of its service delivery using manual intervention, Johnson notes. Although the need for this intervention was rare, it was enough of a challenge that the company clearly needed something to improve performance to its customers.

In order to ensure 24/7 availability, Radialpoint decided that it needed to balance its Internet traffic, evenly distributing it across the network, as part of its high availability strategy. "High availability for both our devices and our links was the No. 1 thing we were looking for. We were also looking at ease of use, price, and features," Johnson says.

The Solution

As Radialpoint sought load balancers to meet its requirements, the company selected Elfiq's Link LB-2000 and Link LB-3000 Load Balancers.

The Elfiq Link Load Balancers are 1U high, rack-mountable units. What's perhaps most interesting about the Elfiq Load Balancers is that they use Layer 2 of the IP Protocol. As Layer 2 devices, they function at the application layer, enabling them to almost invisibly connect to the network, including the firewall and other networking components. Traffic comes into and goes out of the Elfiq devices without extra management or tweaking by the IT department.

In contrast, load balancers that use higher layers of the protocol stack require much higher degrees of user interaction and management and are more costly to use because of these extra required support services. Additionally, most load balancers require a separate database to manage the load balancing functions, generating a rules-based model for load management. If the hard drives used to maintain these tables fail, these other load balancers may fail. Because the Elfiq load balancers don't require an internal hard drive, the only moving part in the Elfiq devices is a cooling fan.

Reduced management costs help to ensure a much faster ROI than with competing products that run on a higher layer of the IP Protocol stack.

As Layer 2 devices, Elfiq Load Balancers function at the application layer, enabling them to almost invisibly connect to the network, including the firewall and other networking components.

The Elfiq load balancers use flash memory to store all configuration and performance data. The load balancers delivered to Radialpoint were configured by Elfiq to meet Radialpoint's requirements before they were shipped. Once two Ethernet cables were connected to the first LB-3000 (one to the Internet, and the other to Radialpoint's internal network), load balancing automatically started. Management of the Elfiq device can be performed using a Web interface or through a dedicated management port on each device.

The LB-2000 units can handle as many as 128,000 sessions and 16 subnets, while the LB-3000 supports as many as 512,000 sessions and 64 subnets. As with competing load balancers, the Elfiq units can be configured to apply the user's choice of load balancing methods. The Elfiq load balancers provide real-time load balancing.

Radialpoint uses two LP-3000 load balancers at its primary site in Virginia and a pair of LB-2000s in a remote backup site in Montreal. The pairs are configured in what Johnson refers to as a high-availability setup, which provides for automatic failover.

The Results

Radialpoint is very pleased with the results. The Elfiq LB-2000 and LB-3000 units are enabling the company to provide the high-availability, 24/7 services that it desires.

Since the units were installed at Radialpoint, the company's systems have been able to handle any spike in network activity without significant delays. Manual intervention in order to handle performance problems has been unnecessary. Additionally, the Elfiq devices enable Radialpoint to get reports on network status and other parameters that the company was unable to generate prior to their installation.

Radialpoint's experience with the Elfiq devices has not been perfect, however. "We had an issue with a unit at one time in regards to IPV6 handling," Johnson says. "Elfiq took care of the issue and has been very good responding to service requests. They've provided quick fixes."

Johnson notes that there have been some times when failover occurred due to power issues or to link failures. When such failures have occurred, automatic failover has worked "flawlessly," according to Johnson.

Radialpoint has had its Elfiq LB-2000 and LB-3000 load balancers in use for a couple years but hasn't yet taken advantage of its geographic load balancing. This feature will enable Radialpoint to balance the load between its local and remote sites, potentially providing even better performance with current loads and the ability to handle future growth.

The systems in use by Radialpoint are handling the company's high-availability requirements so well that Johnson doesn't anticipate the need for additional Elfiq load balancers. The Elfiq load balancers that Radialpoint selected and is currently using have met its needs for delivering high availability, 24/7 service ever since they were installed. In these days of frequent equipment replacement, nearly constant updating, and expected product obsolescence starting practically from the moment of installation, it's nice to find a product that will apparently meet a company's needs now and in the future. P

Elfiq Networks Link LB-2000 & Link LB-3000 Load Balancers

Layer 2 load balancers that use Flash memory to store configuration and operational code; they are almost transparent to the network and don't require large databases or significant, dedicated support

"High availability for both our devices and our links was the No. 1 thing we were looking for. We were also looking at ease of use, price, and features," says Steve Johnson, system administrator at Radialpoint (www.radialpoint.com).

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Protection Through Data Governance

Controlling Data Access & Monitoring Its Use Is A New Area Of Concern In IT

by John Brandon

• • •

As the name implies, data governance can be a difficult proposition for companies that do not have the resources to monitor and control the flow of data. The "governing" process is one that takes time, resources, skills, and software that is tuned for your specific needs. It's a bit like trying to govern a small country: It's obviously important to protect your borders, police your citizens, and establish clear laws over how the country operates, but enforcing and monitoring those laws can be difficult.

Data governance tools from companies such as Lumigent (www.lumigent.com), Imperva (www.imperva.com), Guardium (www.guardium.com), and others seek to alleviate some of the pressures of knowing exactly who has access to the data in your organization, where the data resides, whether it meets SME compliance regulations, and how well it is protected from intruders.

Governance 101

Governance involves filtering, monitoring, security, and control over the databases used for applications, and it can be one of the most misunderstood and overlooked areas of IT. And no wonder: Compared to topics such as server virtualization or high-speed Wi-Fi networking around a corporate campus, governance is just not a hot topic. According to a study by the IT Policy Compliance Group, 90% of businesses do not have a data governance program for protecting data and policies for monitoring its use.

"Most often there is a lack of awareness regarding data governance in general," says Rani Osnat, vice president of marketing at data governance vendor Sentrigo (www.sentrigo.com). "Unlike larger companies, SMBs don't always have the manpower or expertise in-house to be aware of various standards, legal requirements, and best practices, let alone develop them and enforce them. On the other hand, SMBs have an advantage over the enterprise; the scale of data they need to deal with is smaller, and they have fewer heterogeneous environments, such as fewer legacy systems and less merger and acquisition-driven integration."

"SMBs are subject to different regulatory or reporting requirements related to data governance," adds Mark Kraynak, the senior director for strategic marketing for Imperva. "Many SMBs are not publicly traded, so they aren't subject to all of the same regulatory requirements as larger public companies; Sarbanes-Oxley only applies to companies that are publicly traded in the U.S. Another example is PCI DSS (Payment Card Industry Data Security Standard). All merchants, regardless of size, are subject to the same standard, but the reporting and verification requirements differ based on how many transactions a merchant processes per year. Data governance is an issue for any organization that handles sensitive internal or customer data. SMBs are not different from enterprises in this regard."

Data Governance Options

As with any complex subject in IT such as data governance, many options are available for dealing with the issue. Some products focus more on security and protection, such as Vormetric's Data Security Expert (www.vormetric.com), because a data breach can be more devastating to a small company than one with greater financial resources. Other products, such as Guardium and Lumigent Audit DB 6.0, focus a bit more on policies and compliance.

The two main policy standards for SMEs are COBIT (a data auditing and control regulation) and SAS 70 (a financial auditing standard), both of which affect many SMEs. In California, the CA-1386 regulation requires that all companies disclose any security breach; similar laws exist in other states. And HIPAA governs the use of private healthcare information.

According to Forrester Research analyst Noel Yuhanna, security breaches and compliance are inextricably tied, even if areas of IT sometimes choose to focus on them differently and even have dissimilar budgets for products. "Authentication, authorization, and access (AAA) control are critical to data governance," says Yuhanna. "Although all database management systems (DBMS) offer AAA control—which is the foundation of DBMS security—without strong security policies, such controls are not very effective. [And yet], regardless of the regulatory compliance requirements, all enterprises should monitor their database activity to ensure that only authorized users access critical data."

Yuhanna says data governance should focus on security patches for DBMS; data auditing for the "who, what, when, and how" of every database; network-level data encryption for both internal and external transmissions; encryption for internal databases (including data-at-rest encryption); real-time data security monitoring; vulnerability assessment (including weak passwords and unused user accounts); and data masking to protect data in nonproduction environments.

Sentrigo's Osnat says protecting enterprise databases involves a multilayered strategy: patching data, using strong passwords, using encryption, and allowing third-party audits. Analyzing log files and capturing traffic flows is also a critical aspect to data governance, according to Imperva's Kraynak. This requires not only software or an appliance that analyzes flows on the server itself but agents that analyze gateways and storage systems to audit activity that is independent of the database itself.

Data Governance Tips

- Use a multilayered approach to audit and control data.
- Analyze regulations such as COBIT and PCI DSS and how they apply to your business.
- Audit data on the server itself and at all access points, such as routers and mobile devices.
- Use data encryption tools to protect information from unauthorized access.

Data Governance Products

Guardium
Real-time data monitoring and auditing tool for safeguarding databases
www.guardium.com

Imperva SecureSphere
Activity monitoring and data auditing appliance for regulatory compliance
www.imperva.com

Lumigent Audit DB 6.0
Software for data auditing for risk management and compliance for log reading and data capture
www.lumigent.com

Sentrigo Hedgehog
Activity monitoring for compliance regulations such as Sarbox, PCI DSS (Payment Card Industry Data Security Standard), HIPAA, and GLBA (Gramm-Leach-Bliley Act)
www.sentrigo.com

Vormetric Data Security Expert
Policy-based encryption software for monitoring data and controlling access
www.vormetric.com

Using Managed Security Suites For Antivirus

Continued from Page 23

"In addition to assessing software solutions, IT managers must look at security as an ongoing service and consider the service, responsiveness, and reliability of vendors that they consider," adds Jacobs.

Tom Bowers, senior security evangelist at Kaspersky Lab (www.kaspersky.com), likes to refer to managing security for home and remote users as "herding cats." He notes, "The employee's personal PC goes from bad to worse in this context. There is no control at all over PC settings. The status of security (compromised, infected) and the PC's capability is certainly unknown. Lastly, your IT department is facing unknown operating system and service pack levels."

Maximizing Efficiency

Porter, Touchstone's IT director, chose Symantec's (www.symantec.com) Endpoint Protection (see the "Remote Management Suites" sidebar for additional options). "My goal has always been to find one particular product that will do it all for me," he says. "Not only provide antivirus [protection] but also give me device control and some location intelligence. The single unified management interface allows our small IT staff to maximize efficiency."

Since Touchstone's Symantec implementation began, Porter says he feels the managed security suite has proved its worth by quarantining infected laptops before they could contaminate the network. It saves the staff a considerable amount of time, too. "In preparing for audits, we have spent up to two man-weeks pulling together log files and the resultant set of group policies," Porter says. "Now, with the ability to literally take a snapshot of a dashboard at any point in time, we can do this in a couple of minutes a day."

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It Doesn't Hurt To Hang With Non-Techies

Today's SMEs Are Requiring "Not-So-Technical" Skills

by Chris A. MacKinnon

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At one time, if a corporation hired an IT manager, it made sure the new hire had the technical skills necessary for the job. These days, however, corporations are looking for IT and data center managers with more than just technical skills; they're looking for someone with a capacity for non-technical skills, as well. We spoke with a few industry experts who can point you down the non-technical road to corporate success.

Donna Cates Sphar, president of CSI Executive Search (www.csi-executivesearch.com), says since 1997 she has consistently witnessed the need for technical professionals to excel in key nontechnical performance skills. She says, "Those who are able to do so find more satisfaction in their daily work through increased levels of engagement and opportunity resulting from professional development outside their technical skill set."

Can You Hear Me Now?

Most experts will agree that the big list-topper is communication. You may know how to replace a SCSI hard drive, but can you communicate effectively with your co-workers?

Lynda Leonard, senior vice president of ITAC (Information Technology Association of Canada), says employers are looking for technical resources with the capacity to listen effectively, find solutions, and communicate the elegance of these solutions back to end users. Leonard says, "The image of the Dilbert-like, hermetically sealed-off cubicle-dweller is thankfully becoming a thing of the past. If your communications capacity does not measure up to your technical chops, take some remedial action. This is particularly true for those working in midsized companies. The chances are good that in a smaller company there will be no buffer between you and users you're serving."

Leonard says to work effectively in a midsized company, in a discipline that "laypeople already find bewildering," you have to be able to communicate effectively. Cates Sphar says the ability to communicate effectively and thoughtfully with non-technical (and technical) professionals is a much sought-after skill.

When communicating verbally, Cates Sphar says it's important to prepare for a conversation. "Organize your thoughts," she says. "Make an outline of key points. Speak clearly. Cover the outline point by point, noting appropriate feedback, paying attention as to whether the other party understands each point. Clarify points as needed; be approachable; be willing to take time needed to teach non-techies, in language they understand, what they need to know."

As far as email goes, Cates Sphar offers the following quality control tips: "Set your email to send every 10 minutes rather than immediately. Do not fill in the To: line until the message is complete—including proofreading and spell check. These practices can prove vital should you unintentionally hit Send or should you shortly realize the need to modify the email message in any way. Communicating effectively with non-techies requires this extra care." She adds that it's always good to brush up on your writing skills.

Leonard says if you are in the job market, make communication your top priority when job hunting. She says, "Whenever we release any new data about the shortage of skilled workers in IT, it provokes a storm of protest from recent graduates who have been trying to find work without success for some time. I've received many of these over the years, and I'm sympathetic to the difficulties new graduates face. But I would observe that these emails are generally as ungrammatical as they are vitriolic."

Business Is Business

Another area that most experts would agree is crucial is understanding the business needs of the enterprise. Leonard says it is important to demonstrate a "going-in comprehension" of the business your employer or prospective employer pursues (and be able to situate IT needs in the context of the fulfillment of the business objectives). Leonard notes, "If all you're doing is solving the IT problems that come through the door and failing to communicate the role IT can play strategically in the company's growth, you probably won't survive any reversal in your employer's fortunes. So the capacity for strategic, integrative thinking and an ability to communicate are key."

Cates Sphar agrees. She says having an ability to grasp business-based objectives underlying IT projects and positions is paramount, and it's also important to understand the company's mission statement. She says, "Decide whether you're ready to contribute to the success of the mission. If you are, read on. If you are not, stop here and think about this fact seriously. Study the company's organizational chart. Internalize its structure. Stay abreast of your company's overall business initiatives." She says you are ahead of the game if you understand that your livelihood is directly connected to your ability to assist your company in accomplishing its mission statement, working in tandem with appropriate business units by completing business objectives.

Working as a team member is also critical if you want to survive (and thrive) in today's small to midsized enterprise. Cates Sphar says having the ability to "play well with others" is a necessary component for business success. She explains, "Contribute to the overall success of your organization through effective engagement and communication with non-techie, as well as techie, team members. Focus on the fact that business objectives are accomplished through your company's most valuable resource—its people. Treat all team members with respect. Approach each project with flexibility and resourcefulness—a 'can do' attitude."

Cates Sphar doesn't stop there with team playing. She adds, "Seek information revealing the experience base of the key members of each business unit that your project overlaps. Learn the preferred communication method of key members on projects. Listen, listen, and listen. Absorb any data provided by the non-techies regarding their IT skill set, technical capacities, business unit objectives, and their specific role within their business unit."

In Cates Sphar's opinion, earning the respect of non-IT business units is key. She says their buy-in to IT's value within the company's business unit is essential for highly successful results. "To accomplish this," she says, "you will need to get to know the members of these business units, and you will have to meet or exceed requirements and expectations—on time, every time." P

Communication Skills

Linda Ranostaj, senior staffing consultant for Whitaker Consulting (www.whitakerconsulting.com), says the following communication skills top the non-techie list:

- Verbal and written skills
- Ability to present to a group
- Ability to document
- Ability to speak to all levels of the organization
- Ability to be a good listener
- Ability to write a neutral email

Ranostaj's favorite two skills:

Ability to speak to all levels of the organization. "This means speaking in each level's terms and understanding what is important to each group," she says. "[The] C-level group is the 'big picture' people, so [that means] explaining in broad terms and painting a verbal picture with big strokes. Managers are solution-driven, so written project plans will show the managers that you have organized your thoughts and have a plan to get the work accomplished. Peers respond to informative, factual language that piques their interest and gains their respect. Subordinates understand clear direction and encouragement."

Ability to write a neutral email. "Using restraint and self-control when sending emails is very necessary," Ranostaj says. "Never write an email when you are angry; wait and address it later when you can be objective and discerning."

Workplace Professionalism

Donna Cates Sphar, president of CSI Executive Search (www.csi-executivesearch.com), says it's important to have the ability to exhibit top-caliber professionalism in the workplace daily. She says valued characteristics include:

- Integrity
- Team orientation
- Honesty
- Customer service excellence
- Punctuality
- "Can-do" attitude
- Prompt follow-through
- Respect for others

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WHAT'S HAPPENING

Safe & Fast Networking

How Computer Connection Is Boosting SME Network Security & Efficiency

by Chris A. MacKinnon

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TWO WORDS TYPICALLY come to mind when you think about the ideal small to midsized enterprise networking environment: safe and fast. Maintaining uptime, security, and overall network efficiency are all high up on any enterprise's agenda. Computer Connection of Central New York (315/724-2209; www.ccny.com) is in business to help enterprises build, manage, and maintain secure and efficient network environments.

CCNY works in the used, refurbished, and secondary markets for Sun Microsystems and Cisco equipment. Founded in 1988, the company offers complete hardware and software support to its customers. The company offers security products from vendors including Array Networks, Barracuda Networks, Fortinet, and Juniper Networks. CCNY has a testing facility that is designed to meet and exceed industry standards. CCNY's engineers and technicians are well-trained on the installation and maintenance of the hardware and software products it offers, and the company is committed to creating secure, efficient, and highly available network environments.

Much is happening at CCNY in terms of consulting and system integration of IT networking and security products. The company has the product base to protect organizations from malicious activities that span all areas of the network environment.

Why The Interest

Kim Longway, spokesperson for CCNY, says SMEs are interested in CCNY's approach to secure and efficient network environments for several reasons. Longway says CCNY strives to maintain 99.999% uptime on an enterprise's network. She says network downtime can be directly correlated to adverse bottom-line results. She explains, "With the CCNY layer-approach to securing networks, we strive to keep that level of network performance by reducing threats, both external and internal. We also believe in hardened firmware solutions, as opposed to software solutions running on existing internal servers." Longway says installing appliances that use such techniques as ASIC acceleration at different layers within a network not only prevents security breaches and corruptions but also keeps speed to optimum levels. "We firmly believe that if it's slow, it's broken."

According to Longway, there are varying levels of security in the secure and efficient networking industry. She comments, "Unfortunately, maintaining a proper security posture for one's enterprise is too often dictated by the CFO, not the CIO. Underfunding and shortsightedness by enterprise management who really don't understand the effects of underfunding network initiatives is too common. How many times do we see security breaches in the retail sector that can literally put a company out of business? Whether it's PCI, HIPAA, or GLBA [Gramm-Leach-Bliley Act] compliance—these rules are in place for a reason."

CCNY has the tools to prevent intrusions, Spyware, worms, Trojans, and other corruptions at various layers within a network. Longway says the company can deploy these solutions for its clients at a cost that everyone can live with. She says CCNY firmly believes that "an ounce of prevention is worth a pound of the cure."

The Tool Shed

The technology behind CCNY's approach to network environment security is based on a layered strategy. Longway comments, "We firmly believe that multiple lines of defense are necessary to properly secure a network. A perimeter defense line that includes an IDP/IPS solution and gateway antivirus and scanning of HTTP, email, and FTP is a must. To prevent corruptions before they enter the network, rather than running a server or desktop software solution internally, is fundamental to our approach." Longway says that is not to say that these internal levels should not be maintained. "That is part of our layered strategy," she says.

Longway says a proper network access solution for corporate assets is also recommended. She says you should only allow those in who need access to these assets (and authenticate and audit those individuals); this, she says, will prevent a lot of pain. She adds, "You can also check individuals' security credentials to see if they have the latest updates to their endpoint solution before entering the LAN."

What's happening in the secure and efficient network environment industry? It all boils down to productivity. "As we all know," Longway says, "mobility is the buzzword in our industry today. To be able to use multiple platforms throughout the corporate structure, by those who need to and only those who need to, is key to enabling desired productivity levels. We are currently very active in deploying secure enterprise wireless solutions to institutions at all levels." She says whether it's an SME or a business with thousands of users, CCNY offers a secure, wireless network environment that will enable companies and institutions to increase their productivity (and probably save resources in the process).

Is CCNY's solution unique? Longway says, "We like to think so. Maybe not totally unique to CCNY on the global front but different from many of our regional competitors. We not only believe in a layered approach but also in a UTM (unified threat management) approach within those layers. UTM allows individual appliances to resolve multiple issues from one platform. This allows for ease of management, training on only one platform, ease of integration, and reduced man-hours needed to be devoted to security threats."

Longway says this approach allows for easy reporting and auditing. She says the total integration allows enterprises to increase their security posture while, in many instances, saving resources over the long haul. She adds, "We constantly test and entertain new products that fit this UTM approach to increase security and ease the pain of management."

What's Next?

So what is on the horizon for CCNY? Longway says the company is currently involved in a number of projects ranging from secure enterprise wireless deployments (in both healthcare and education verticals) to helping secondary educational institutions reach their CIPA (Children's Internet Protection Act) objectives. She says CCNY tries to implement best-of-breed solutions that can both increase an institution's security posture while bringing relief in the management arena. "We will continue to evaluate new solutions and offer only those that we feel are truly world class technologies." P

THREE QUESTIONS

Amerex Fights IT Fires

Clean Agent Fire Suppression Won't Hurt IT Gear, Data, Or Staff

by Daniel P. Dern

THE GOAL OF TRADITIONAL fire suppression systems such as sprinklers is to preserve the structure but not necessarily water-sensitive contents such as paper or IT gear. One company providing an alternative is Amerex (www.amerex-fire.com), a Trussville, Ala.,-based affiliate of McWane. Founded in 1971, the 500-plus-person fire-fighting product manufacturer is the world's largest manufacturer of wheeled and hand-portable extinguishers for commercial and industrial applications. It also manufactures state-of-the-art gas detection systems and pre-engineered fire suppression systems for applications such as vehicles, commercial cooking operations, paint spray booths, and IT facilities.

■ What are the biggest IT-related issues facing today's small to midsized enterprise?

"Protection of IT facilities is an issue that should be on their minds," says Bob Langer, vice president of Amerex's systems division. "This includes choosing and selecting the most appropriate fire protection."

How common are fires in IT areas? "Not very," says Langer, "but when they do occur, lost data or downtime can mean loss of customers and business." Unlike sprinklers, clean-agent systems from companies such as Amerex are intended to also protect equipment and data as well as the facility proper, and, Langer adds, "Clean-agent systems will detect fires quicker because they use smoke detectors instead."

Amerex doesn't advocate removal of sprinklers "because they play an important role in the total fire protection plan," says Langer, but, he stresses, "if that's the only protection, there could be significant water damage and downtime."

Most small to midsized data centers are likely to have sprinklers but not fire suppression, according to Langer, usually because they're not aware that other solutions in addition to sprinklers are available. "And they're usually unaware of the simplicity and low cost of installation of these solutions compared to the risk," says Langer. "For example, our pre-engineered installations to protect a small space could start at under $10,000."

■ What should *Processor* readers know about your company's products?

For IT facilities containing sensitive electrical equipment and valuable data, such as data centers, server rooms, telco/PBX rooms, and electronic data/media/tape storage, Amerex offers its CPS (Clean Agent Pre-Engineered System) clean-agent fire suppression systems. According to the company, the CPS is intended to protect critical, irreplaceable business assets from fire risks without putting people or the environment at risk.

"The clean-agent systems we have are in what's called a pre-engineered category," says Langer. "They're relatively simple to design and install and are geared to small to midsized server rooms in enterprises. It's an affordable alternative to sprinkler systems to provide protection that will not result in damage to equipment or have a negative impact on people."

The fire extinguishing agent in Amerex's CPS "uses chemical agents to create an atmosphere which chemically won't support combustion," says Langer. Despite common misconceptions to the contrary, clean agents such as Amerex's can be used in occupied spaces. "For example, your IT staff isn't at risk during a discharge." As a precaution, however, the National Fire Protection Association standards recommend a maximum of five minutes' exposure, Langer notes.

Amerex warns companies that they should also have fire extinguishers available to protect places outside the CPS coverage area, and before any system installation, a fire hazard analysis should be done to ensure they're providing appropriate fire protection.

■ What makes your company unique?

"We've been in the fire protection business a long time," says Langer. "Our clean-agent product has some unique features not found in other products, like a dual outlet valve, which lets you protect the room and underfloor area with a single tank. And the wiring for the detection system is modular; it has plug-together cabling and connectors, making installation quick and easier."

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